

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 12th July 1878.

No.	District.	Date of return from each district.	Rainfall at Sadler Station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	REMARKS.
BENGAL.						
<i>Western Districts.</i> 1873.						
1	Burdwan	July 15th	4.1	Weather hot.	Ans and aman crops reviving.	Fever prevalent.
2	Bancoorah	" 12th	1.16	Partial showers prevailed during the week.	All doing well up to date, but some heavy rain is now required to allow of the seedlings being generally planted out.	A few cases of cholera at Band-quar.
3	Beerbhoom	" 12th	2.56	More or less rain has fallen every day. Heavy fall on the night of the 11th. The rainfall to the east of the district seems to have been lighter than elsewhere.	Ample rain has fallen, and ploughing, sowing, and transplanting are in progress. Up to 10th the easterly parts wanted more rain, but if last night's fall was general, this want has probably been met.	
4	Midnapore	" 12th	2.1	Hot and cloudy, with occasional thunderstorms and heavy showers of rain.	There has not been yet nearly enough rain. With the exception of indigo, the prospects of the crops are not as good as in ordinary years.	A few cases of epidemic cholera.
5	Hooghly	" 12th	1.86	Clear and cloudy, occasional heavy showers.	Ans slightly injured by the drought, but the remainder growing well.	
	Howrah	" 12th	2.75	Rain more or less daily, except at Amta, Bagman, and Shampore, where it rained on 8 days only.	The rain has done much good to the dhan crops. The sugarcane, though revived by the rain, is not expected to turn out so well as usual. The jute plants are somewhat stunted in growth.	
<i>Central Districts.</i>						
6	24-Pergunnahs	" 15th	1.51	Warm, with occasional showers.	Jute, sugarcane, and ans crops promise well, but more rain is required for the cultivation of aman.	General health good. A few cases of small-pox reported at Sak-khira and one case of cholera at Barrackpore.
7	Nudda	" 12th	3.77	Accounts from all parts show that rain has fallen. 2.81 fell at Krishnaghar on the 11th.	The condition and prospects of all crops have much improved. If the weather remains favorable, fair crops may be looked for.	Public health good.
8	Jessore	" 12th	2.37	Generally cloudy with frequent showers; wind usually from south-east.	The rain that has fallen has done good, but more is wanted.	
9	Morshedabad	" 12th	0.59	There has been more rain, but not sufficient. The weather is close and damp.	The crops are backward, but progressing. The fields are being weeded. More rain is wanted for the transplanting of late rice seedlings.	
10	Dinagopore	" 12th	2.65	Hot, damp, and showery.	Rain is still much wanted throughout the district. There were partial showers of heavy rain here and there, but nothing like a general downpour.	
11	Maldah	" 12th	1.57	Cloudy; slight rain almost daily, but weather warm and sultry.	The rain that has fallen has benefited the bhadoi and aman dhan, but more is needed. From some parts of the district damage to the crops by the late flight of locusts is reported, but not serious.	Total rainfall from 1st January to 12th July 1873 ... 28.40 Do, 1873 ... 8.26
12	Rajshahye	" 12th	1.23	Constantly gathering clouds as for rain, but only occasional local showers have fallen; nights still and close; slight breeze by day.	The slight rain that has fallen has not been sufficient for the rice crops, the prospects of which continue unfavorable; mulberry has benefited from the rain, and so has indigo.	

* Telegram of the 15th July received on the same day.

No.	District.	Date of return from each district.	Rainfall at Sudder Station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	REMARKS.
BENGAL.—(Contd.)						
Central Districts.—(Contd.)		1873.				
BANGALORE DIVISION.—(Contd.)	13 Rungpore	July 12th	1.57	Cloudy, with slight showers of rain.	Crops on high land very backward on account of deficiency of rain. Those on low land better.	
	14 Bograh	" 12th	2.79	Cooler than before and more rain has fallen.	The cutting of the aus paddy has commenced, and the aman paddy is being sown. The additional rain that has fallen in the week has done good, but more is still wanted; jute-cutting has commenced.	
	15 Pubna	" 12th	1.93	Cloudy and close notwithstanding two moderate showers of rain on the 7th and 10th instant.	Crops have been benefited by the showers, but more rain is wanted.	
	16 Darjeeling	" 12th	9.25	Rain has been abundant in the hills during the week, and in the plains enough has fallen to preserve the crops, but more is said to be required there to make up the proper quantity.	The crops are progressing favorably throughout the district.	
	17 Julpigoree	" 12th	7.15	Rainfall good; weather cool and all that could be desired for the time of the year.	Bhadai dhan is being cut and is an average fall crop. Jute promises to be a very fine crop, except in the few places where early sowings failed. Hymant dhan is being sown, and the weather is remarkably favorable.	Health of the district generally good.
COOCH BEHAR DIV.		" 12th	9.78	Showery and cloudy. Heavy rain on the 11th instant.	Favorable. Ploughing for the aman crop is going on.	
Eastern Districts.						
Dacca Division.	18 Dacca	" 15th*	0.98	Weather showery, but no steady rain.	Prospects of crops good. More rain wanted, particularly in the west of the district.	
	19 Furreedpore	" 12th	1.46	Hot, with occasional drizzling showers of rain.	Crops appear to have been slightly benefited by the little rain which has fallen during the week; more is needed to restore them.	The rivers keep falling slowly.
	20 Backergunge	" 12th	2.08	Cloudy and showery. There has not been much heavy rain.	The aus crop is expected to be only about half of what it was last year, and the aman is also suffering from want of rain.	
	21 Mymensing	" 12th	2.41	Showers almost daily, but no heavy continued rain.	More rain would be beneficial to the crops.	
	22 Sylhet	" 5th	1.38	Very sultry. Little or no rain.	Good. More rain wanted. Rivers have fallen a little.	
CHITTAGONG DIVISION.	23 Cachar	" 5th	2.18	Cloudy, with rain. Warm and oppressive.	Not enough rain yet.	
	24 Chittagong	" 5th	0.87	Fine, with showers at intervals.	The rain during the week has been very insufficient for field work, which is at present progressing slowly.	No cholera reported.
	25 Noakhally	" 5th	2.34	Daily rains. Weather cooler.	Aus and aman dhan progressing favorably.	
	26 Tipperah	" 12th	1.10	Gloomy and close weather, with occasional drizzling rain.	Quite satisfactory.	
	27 Chittagong Hill Tracts	" 5th	3.23	Cool in the morning and evening, but warm at noon.	Rain is again much wanted in all parts of the district. The rice crop is suffering greatly from the heat of the sun.	
Hill Tipperah		" 5th	1.50	Cloudy and very hot	Ploughing and sowing still going on. Prospects good.	
BEHAR.						
PATNA DIV.	28 Patna	" 15th*	2.60	Weather partly cloudy and partly clear. The rain of last week seems to have been general.	The rains have done immense good to agriculture.	Health of the district on the whole good.
	29 Gya	" 12th	0.82	Light rain	Bhadai is being planted out. Paddy sowings have commenced.	

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BEHAR.—(Contd.)						
		1873.				
PARRA DIVISION.—(Contd.)	80 Shahabad	" 12th	6.55	Cloudy with heavy rain since the 9th instant. The rain has been general in the district.	Ploughing going on; nursery rice planted; prospects in every way improving.	Cholera still bad in the town.
	81 Tirhoot	" 12th	0.19	Hot and cloudy	There has been more rain in the north of the district than elsewhere. From Hajepore report is that rain very much wanted up to 10th; the malmi crop being backward. More recent reports show that rain has fallen well in the south.	Cholera still continues prevalent in the east and south.
	82 Saran	" 12th	1.68	Hot and cloudy. Rain set in during the week. Prevailing wind, east.	Rain general throughout the district. Has done much good both in enabling the ryots to prepare the lands as yet unsown for bhadoi and khureef sowings, and in reviving the crops that had commenced to wither. The manufacture of indigo (first cuttings) will shortly be commenced. Continuous rain much wanted.	Cholera continues, and small-pox on the decrease.
	83 Champaran	" 12th	4.15	Cloudy, with rain. Both east and west winds.	The rain which fell on the 12th has been of great benefit to the bhadoi crops, which appear promising.	
BHARGULPORE DIVISION.	84 Monghyr	" 12th	0.65	Very cloudy, but heavy rain still holds off; light showers fall occasionally.	The prospects of the crops are improving. The second sowing of the bhadoi crop has come up, and if rain continues, it will do well. No damage to crops in the district by locusts has been heard of.	
	85 Bhargulpore	"	"	"	"	Return not received.
	86 Purneah	" 12th	2.76	Cloudy and showery; more rain wanted.	Bhadoi crop has suffered much from want of rain; if rain falls now, the aughany crop will be good.	
	87 Sonthal Pergunnahs	" 12th	"	General rainfall much less than is needed.	All crops promise to be late, though prospects are improved.	
ORISSA.						
ORISSA DIVISION.	88 Cuttack	" 15th*	2.64	Rain at Kendrapara, Jajpore, and Juggutalingpore.	Prospects excellent.	
	89 Pooree	" 6th	0.24	Cloudy, with occasional slight rains.	Sarad seed being sown in pergunnahs Bahang, Pachindui, &c., and the seed which had come up last week in pergunnahs Kurlo, Kodhar, and Damar-khand, is suffering from want of rain. The seed grain sown last week in pergunnahs Kotdesh, Kotrahang, &c., has come up, and appears promising. In certain villages of pergunnahs Malced, Bagrikot, Kila Parikood, Gad Sathpara, no preparation for sowing has yet been made for want of rain. The state of beali crop in pergunnahs Kotrahang and Lembai is good. Cotton being gathered. Rain anxiously waited for in several pergunnahs.	
	40 Balasore	" 12th	1.47	Rainfall somewhat scanty for the time of the year, but not so much so as to injure the crops.	Beali crop well above ground and beginning to look a little yellow for want of rain. Sarad crop sprouting well and in no danger.	Cholera again rather prevalent.

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CHOTA NAGPORE.						
	<i>South-West Frontier Agency.</i>	1873.				
41	Hazaribagh	July 12th	0.98	More seasonable than last report, though rain seems to have been but partial.	Where rain has fallen, agriculture is progressing favorably. Towards the north, however, more rain is required to enable the lands being cultivated.	Small-pox and cholera still prevalent.
42	Lohardugga	" 12th	1.82	Rainy and seasonable.	The rains seem really to have set in at last, and the prospects in Chota Nagpore are now fair. Rain has fallen generally, and in Palamou the sowings are going on actively, but seed is scarce and the loss of cattle life has been very large, but the prospects there are altogether much brighter.	
43	Singbhoom	" 5th	0.60	Rain has fallen since date of last report, and not a day too soon; more rain, however, is still wanted.	It is reported that a good portion of the dhan meant for planting out has perished. The rain that has fallen will save the rest, and there is still time for a second sowing.	
44	Mannbhoom	" 12th	3.20	Showery and cool	The prospects of the crops has much improved since last week, but the rain has come too late to save the early crops of Indian-corn, &c.	Cholera still prevalent, especially in the Sudder station, where 47 deaths reported during the week.
ASSAM AND ADJACENT HILLS.						
45	Goalparah	" 5th	0.81	The weather throughout the week was unusually hot, though there were a few slight showers of rain.	Prospects of mus crop, jute, and sugarcane, good. Rain is wanted for transplanting winter rice plants.	Cholera and fever have but partially re-appeared on account of excessive heat.
46	Kamroop	" 14th	2.92	Hot, with occasional heavy rains.	Mus crop being reaped; prospects of tea, cotton, and sugarcane good. Shali dhan being sown in nurseries.	Public health good.
47	Durrung	" 5th	3.14	Saltry, cloudy; temperature high; hot nights and mornings. Little breeze, of variable directions.	Weather favorable for ploughing operations. Early rice crop being planted out. Tea operations favorable.	Public health generally good. Some cattle disease exists, but it is not very heavy.
48	Nowgong	" 5th	7.12	Very close and oppressive. During the past week, with heavy rain at intervals.	The mus dhan crop is being cut. Cultivation of shalce crop commenced. Tea operations progressing favorably.	Some cases of cholera continue to be reported in the Jagera thanmah. A great deal of low fever lying about among the native community.
49	Seoanugor	" 5th	5.11	Fair, with occasional heavy showers of rain at night. Heat excessive.	The seed grain has been sown, and in Jorhaut planting out of rice has commenced. Tea doing well.	Cattle disease decreasing.
50	Luckimporo	" 5th	7.60	The week was gloomy and wet. Rain fell on five days, generally in the early morning or during night. At North Luckimporo, cloudy and drizzling rain on 25th and 29th and 30th. The rest dry and hot.	Prospect of crops good; weather more favorable for tea than it has been; and the young rice has commenced to be planted out.	Cholera on south bank has abated, but still continues in parts in the north bank.
51	Naga Hills	June 29th	0.03	Rather hot in the hills owing to the want of rains, and close and muggy in the plains.	Most unfavorable reports have been received of the prospects of rice crop in the hills owing to the want of rain during the past week. The crops in the plains have not suffered so much as those in the hills. The present prospect of the several crops are not cheering.	

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ASSAM AND ADJACENT HILLS.—(Contd.)		1873,				
52	Khasi & Jynteah Hills	July 5th	2.98	The weather has been fine, with showers during the day and at night.	The crops are progressing well. The new potatoes have been harvested, and they are of a good quality.	Sickness has disappeared.
53	Garo Hills	" 5th	2.00	The weather has been reasonable. There has not been much rain, but frequent showers.	The state of the crops is good. Other prospects very fair.	

Published for general information.

CALCUTTA, STATISTICAL DEPT.,
The 15th July 1873.R. KNIGHT,
Asst. Secy. to the Govt. of Bengal.

Weekly Report of Rainfall compiled at the Meteorological Reporter's Office.

DIVISION.	DISTRICT.	STATION.	Rain from 22nd to 28th June 1873.	Rain from 28th June to 5th July 1873.	RAIN FROM 1ST JANUARY 1873.		REMARKS.
					Inches.	Up to date.	
GENERAL.							
BENGAL.	WESTERN DISTRICTS.		Inches.	Inches.	Inches.	1873.	
	Sardwan	Burdwan	0.81	0.83	16.44	5th July.	
		Culna	Nil	Nil	12.81	ditto.	
		Bood-Bood	ditto.	1.46	16.06	ditto.	
		Bancoorah	0.80	1.43	13.40	ditto.	
	Bancoorah	Jehanabad	0.84	0.83	9.73	ditto.	
		Bancoorah	0.83	1.43	13.82	ditto.	
		Sooree	Nil	0.06	10.55	ditto.	
		Midnapore	0.88	0.87	21.18	ditto.	
	Midnapore	Tumlook	1.02	0.97	12.63	ditto.	
		Gurbetta	1.00	0.88	15.77	ditto.	
		Contal	1.75	1.87	11.31	ditto.	
		Hooghly	1.73	1.75	15.80	ditto.	
	Hooghly	Hooghly	1.01	2.17	14.51	ditto.	
	Howrah	Howrah	1.02	1.07	12.00	ditto.	
PUNJAB.	CENTRAL DISTRICTS.						
	24-Pergunnahs	Saugor Island	0.80	2.00	11.93	ditto.	
		Calcutta	0.84	1.21	12.31	ditto.	
		Alipore	0.84	2.43	13.50	ditto.	
		Bumserhant	0.30	2.30	12.43	ditto.	
	Nuddea	Harriet	Nil	2.05	14.17	ditto.	
		Diamond Harbour	0.73	2.30	9.80	ditto.	
		Barrapora	0.46	4.74	12.03	ditto.	
		Sakherah	0.08	0.41	12.70	ditto.	
	Jessore	Barrackpore	0.40	2.04	12.77	ditto.	
		Bum-Dum	0.04	2.22	11.40	ditto.	
		Kishinagar	0.01	0.52	11.80	ditto.	
		Hansong	0.32	1.06	12.81	ditto.	
	Moorshedabad	Mohorapore	0.18	1.19	12.57	ditto.	
		Choudanah	0.10	0.35	12.18	ditto.	
		Kooshia	0.03	0.35	12.10	ditto.	
		Hansong	0.18	1.13	10.84	ditto.	
HARRYAN.	Jessore	Jessore	2.10	0.33	15.46	ditto.	
		Nurul	1.04	1.34	21.31	ditto.	
		Khachulch	0.40	3.00	21.81	ditto.	
		Jendiah	Nil	Nil	12.18	ditto.	
	Moorshedabad	Barrackpore	0.24	2.31	20.70	ditto.	
		Mugoorah	1.04	1.32	17.80	ditto.	
		Bachampore	0.12	1.31	7.51	ditto.	
		Ramporehant	0.26	0.57	5.99	ditto.	
	Dinapore	City Moorshedabad	0.27	0.80	4.04	ditto.	
		Jumripore	0.26	1.05	9.80	ditto.	
		Adinawango	0.75	0.09	6.82	ditto.	
		Lakolla	Nil	0.54	13.13	ditto.	From 1st February.
	Rajshahi	Dinapore	ditto.	1.08	22.23	ditto.	
		Mahlah	0.05	0.67	7.01	ditto.	
		Banishah	0.10	1.17	10.53	ditto.	
		Natore	0.02	Nil	14.70	ditto.	
Mungpore	Rungpore	0.64	0.14	23.73	ditto.		
	Bhowanipore	Nil	0.63	20.50	ditto.		
	Titalya	Not rec.	0.67	38.83	ditto.	Not received 22nd to 25th June	
	Bogra	1.00	0.63	18.25	ditto.		
Pabna	Pabna	Nil	0.14	17.40	ditto.		
Serdung	Serdung	0.88	0.33	13.28	ditto.		
COCHIN BEHAR.	Darjeeling	Darjeeling	Not rec.	Not rec.	22.06	18th June.	
		Hospital	0.16	1.90	27.28	5th July.	
	Julpigore	Julpigore	1.24	3.04	43.07	ditto.	
Falacetta	Falacetta	2.41	12.05	65.32	ditto.		
Bodah	Bodah	1.04	8.00	35.05	ditto.		
Cooch Behar Tributary State	Cooch Behar	0.37	2.83	61.88	ditto.		
Haidan Doora	Bura	16.50	17.22	82.40	ditto.		
BANGAL DISTRICTS.							
Dacca	Dacca	1.83	3.23	28.23	ditto.		
	Hospital	1.39	2.23	20.88	ditto.		
	Mooshugunge	0.46	4.42	26.17	ditto.		
Furzedpore	Manichgunge	0.18	0.39	16.53	ditto.		
	Furzedpore	0.20	0.14	20.41	ditto.		
	Goolando	0.24	Nil	14.38	ditto.		
Bacharung	Burrianul	0.08	0.07	19.68	ditto.		
	Parosopore	0.80	2.14	21.27	ditto.		
	Madaripore	1.08	1.81	23.02	ditto.		
	Potocahally	0.09	1.13	23.34	ditto.		
Mymensing	Devlat Khan	0.67	0.04	21.48	ditto.		
	Mymensing	0.64	0.24	22.78	ditto.		
	Jamulpore	0.64	Nil	20.32	ditto.		
	Atteah	0.64	0.40	15.18	ditto.		
Kishoregunge	Kishoregunge	1.11	1.37	23.74	ditto.		
	Kyhal	10.00	2.10	20.70	ditto.		
Ocher	Ocher	0.40	2.59	48.00	ditto.		
	Kyhal	Not rec.	Not rec.	28.25	21st June.		
	Kyhal	0.29	ditto.	24.20	23rd June.		
CHITTAGONG.	Chittagong	Chittagong	1.70	0.00	31.20	5th July.	
		Jail	1.10	0.40	35.35	ditto.	
		Cox's Bazar	0.19	0.77	62.21	ditto.	
		Chittagong	1.13	2.08	45.04	ditto.	
	Kishoregunge	Chittagong	0.61	2.71	32.06	ditto.	
		Chittagong	0.31	0.20	31.18	ditto.	
		Chittagong	0.28	0.28	27.23	ditto.	
		Chittagong	1.45	1.26	30.27	ditto.	

Division.	District.	Station.	Rain from 25th June to 28th June 1873.	Rain from 28th June to 5th July 1873.	RAIN FROM 1st JANUARY 1873.		REMARKS.	
					Inches.	Up to date.		
BEHAR.								
PATNA.	Patna	Patna	0.06	0.07	4.78	5th July.	Not received 28th to 31st June.	
		Behar	Nil.	Nil.	3.57	ditto.		
		Barh	0.71	0.28	3.49	ditto.		
		Dinapore { Jail	0.46	1.20	6.54	ditto.		
	Gya	Dinapore { Cantonment	0.90	1.10	4.63	ditto.		
		Gya	Nil.	0.25	3.23	ditto.		
		Nowadah	ditto.	0.80	3.18	ditto.		
		Aurumachud	ditto.	0.18	2.74	ditto.		
	Shahabad	Johannabad	ditto.	0.15	4.20	ditto.		
		Arrah	0.11	0.83	4.90	ditto.		
		Sasaram	0.10	0.08	3.03	ditto.		
		Buxar	Nil.	Nil.	2.43	ditto.		
Tirhoot	Bhuboosh	ditto.	1.36	8.99	28th June.			
	Kousharipore	ditto.	Not rec.	0.85	ditto.			
	Burhangaah	ditto.	ditto.	7.13	ditto.			
	Hajipore	0.78	ditto.	6.49	ditto.			
Saran	Mudibani	Nil.	ditto.	12.74	ditto.			
	Sontamaree	ditto.	ditto.	9.48	31st July.			
	Tajpore	ditto.	1.36	0.42	ditto.			
	Chitpura	ditto.	0.02	4.76	ditto.			
Chimpuram	Saran	ditto.	0.88	14.42	ditto.	Not received 15th to 21st June.		
	Motibhari	ditto.	1.72	16.31	ditto.			
	Retlich	ditto.	4.73	6.49	ditto.			
	Monghyr	ditto.	0.03	0.57	4.31		ditto.	
Monghyr	Kogoolrai	Nil.	0.28	7.35	ditto.			
	Jamooli	ditto.	3.40	7.61	ditto.			
	Bhansulpore	ditto.	0.06	2.95	ditto.			
	Sonpaul	ditto.	0.06	11.74	ditto.			
Bhansulpore	Mudikoppurab	ditto.	3.15	8.97	ditto.			
	Banka	ditto.	0.29	6.50	14th June.			
	Sambora	Not rec.	Not rec.	33.05	5th July.			
	Purneah	Purneah	Nil.	2.34	17.70		ditto.	
Purneah	Kishongungo	ditto.	4.76	18.55	ditto.			
	Arrayeah	ditto.	2.27	9.09	ditto.			
	Deodhar	0.90	Not rec.	0.94	31st May.			
	Jamliara	Not rec.	Not rec.	6.43	5th July.			
Sonthal Pargunnahs	Rajmohal	Nil.	2.35	3.44	ditto.			
	Pakour	ditto.	0.41	11.73	ditto.			
	Nya-Doomka	0.02	2.70	8.23	ditto.			
	Chittra	Nil.	1.10	6.20	ditto.			
CHITRA.								
CHITRA.	Cuttack	Cuttack { Telegraph Office	ditto.	1.50	6.20	ditto.		
		Cuttack { Hospital	0.14	2.07	10.43	ditto.		
		Jajipore	Nil.	3.50	12.75	ditto.		
		Kendrapara	ditto.	3.90	16.80	ditto.		
	Pooree	Jugutalipore	0.58	0.88	9.96	ditto.		
		Palae Point	Nil.	3.50	11.23	ditto.		
		Pooree	0.16	0.86	9.00	ditto.		
		Khurdah	3.09	2.92	10.13	ditto.		
	Balasore	Balasore	Nil.	3.50	14.03	ditto.		
		Bhuddruck	0.17	1.42	9.21	ditto.		
		Jallapore	Nil.	5.33	11.27	ditto.		
		Sorah	ditto.	3.15	6.73	ditto.		
Balasore	Chandbally	0.18	1.70	7.69	ditto.	From 1st April. ditto.		
	Cuttack Tributary							
CHOTA NAPOLE.								
SOUTH-WESTERN FRONTIER AGENCY.								
CHOTA NAPOLE.	Hazaribagh	Hazaribagh { Jail	0.17	2.27	5.00	5th July.		
		Hazaribagh { Dispensary	0.28	1.73	8.01	ditto.		
		Pachumbas	Nil.	2.05	8.08	ditto.		
		Ranchos	0.37	0.01	4.84	ditto.		
	Loharduggah	Palasow	Nil.	0.43	11.27	ditto.		
		Chyobassa	0.12	1.03	7.48	ditto.		
		Purulia	0.27	0.47	8.45	ditto.		
		Gobindpore	Not rec.	Not rec.		21st June.		
	ASSAM & ADJACENT HILLS.	Goalparah	Goalparah	0.98	5.41	42.75	5th July.	
			Nicooboo	2.09	2.00	28.98	ditto.	
			Kamroop	1.19	2.85	29.37	ditto.	
			Borjettah	0.02	0.18	31.21	28th June.	
Darrang		Purpore	0.98	Not rec.	31.41	ditto.	Not received 15th to 21st June.	
		Mungledyo	1.45	ditto.	34.12	5th July.		
		Nowgong	0.03	7.33	39.57	28th June.		
		Seebmagor	1.70	Not rec.	32.50	ditto.		
Seebmagor		Goelghat	0.73	ditto.	25.10	ditto.		
		Jorahat	0.16	ditto.	89.55	ditto.		
		Naseorah	1.75	ditto.	60.80	ditto.		
		Debroughur	0.45	ditto.	41.13	ditto.		
Lushimpore	North Lushimpore	2.01	ditto.	38.35	14th June.	Not received 27th April to 10th May.		
	Suddya	1.83	ditto.	26.12	28th June.			
	Sanoogooding	Not rec.	ditto.	41.95	ditto.			
	Shillong	2.70	ditto.	13.92	5th July.			
Kham and Jynteah Hills.	Jamwal	1.64	ditto.	48.10	ditto.			
	Cherrapunjee	5.26	ditto.	1.02	ditto.			
	Tura	0.28	2.90	0.70	ditto.			
	Besuree	0.13	0.73	0.70	ditto.			
Garohills	Ahyab	5.50	5.00					

CALCUTTA,
The 12th July 1873.

H. F. BLANFORD,
Meteorological Reporter to the Govt. of Bengal.

Meteorological Telegraphic Report for the period 6th to 12th July 1873.

Station.	Date.	Hour.	Barometer reduced to 32°.	Barometer reduced to sea level.	Thermometer.		Humidity Sat. = 100.	Wind.		Rain.	Clouds.	Weather outside.
					Dry.	Wet.		Direction.	Velocity.			
Calcutta.	July 6th	10	29.507	29.525	85.5	81.0	81	S	...	...	E, K	
	11	18	29.414	29.432	87.0	82.8	80	S	...	0.04	K	
	7th	10	29.508	29.526	85.5	81.0	82	S	...	0.02	K	
	11	18	29.430	29.448	86.5	82.3	87	S S E	...	0.08	K, CS.	
	8th	10	29.501	29.519	85.5	82.8	87	S E	...	0.37	K, C	scuds
	11	18	29.407	29.425	87.5	83.0	85	S	...	0.20	K	
	9th	10	29.503	29.521	86.5	82.8	84	S	...	0.12	K	
	11	18	29.429	29.447	87.0	83.0	91	S W	...	...	...	a, d
	10th	10	29.508	29.521	87.4	83.0	74	S W	...	...	E	scuds.
	11	18	29.401	29.419	91.0	84.0	79	S S W	...	...	...	a
	11th	10	29.492	29.510	87.4	83.5	91	S S W	...	0.80	...	a
	11	18	29.409	29.427	85.5	81.5	83	S W	...	0.28	...	a
Saugor Island.	12th	10	29.479	29.497	85.4	82.1	85	...	...	0.05	...	a
	11	18	29.385	29.403	82.2	81.5	85	S S W	...	1.10	...	a
	July 6th	10	29.527	29.543	83	80	81	W S W	15.1	0.20	N	d, u
	11	18	29.431	29.447	85	81	83	S W	14.3	0.20	N	a
	7th	10	29.520	29.532	87	83	79	W S W	17.0	0.20	N	b, u, scuds.
	11	18	29.459	29.465	84	80	83	S W	12.8	...	N	d, a, scuds.
	8th	10	29.519	29.535	89	83	76	S W	10.0	...	N	a, u
	11	18	29.430	29.440	89	82	78	S W	7.7	...	N	b
	9th	10	29.537	29.548	86	83	87	W S W	14.1	0.10	N	a, u
	11	18	29.402	29.408	88	83	76	S W	20.0	...	N	b, u, scuds.
	10th	10	29.531	29.537	86	81	79	W S W	15.2	...	N	b, u
	11	18	29.430	29.445	89	83	76	W S W	15.7	...	N	b, u
Chittagong.	11th	10	29.516	29.523	84	82	91	W S W	5.1	0.50	N	a, u
	11	18	29.428	29.434	90	84	76	S W	14.1	...	N	a, u
	12th	10	29.433	29.439	89	81	91	W S W	5.9	0.50	N	d, a, u
	11	18	29.403	29.409	81	80	85	N	12.0	0.20	N	d, u, u
	July 6th	10	29.542	29.555	80	78	91	E K E	0.2	1.30	N	r, g
	11	18	29.449	29.463	81	79	91	S K	12.3	0.10	K, K	p
	7th	10	29.540	29.548	83	78	79	S K	9.0	0.00	K	p, u
	11	18	29.524	29.531	85	79	75	S E	10.8	...	K, K	b
	8th	10	29.513	29.516	84	79	79	S S E	7.0	...	K, K	b, u
	11	18	29.527	29.529	82	79	87	S E	15.1	0.10	K	p, u
	9th	10	29.550	29.553	82	79	83	E S E	8.8	0.10	K, K	p
	11	18	29.444	29.450	85	80	79	S S E	13.1	...	K, K	b
	10th	10	29.504	29.509	84	79	79	S S E	7.1	0.50	K, K	a
Madras.	11	18	29.300	29.301	86	80	79	S W	19.5	...	K, C	b, u
	11th	10	29.434	29.439	86	81	79	S S E	5.3	...	K, K	b
	11	18	29.320	29.477	88	83	80	S W	8.0	...	K, K	b
	12th	10	29.430	29.432	89	78	81	E S E	8.8	...	N	d, u, g
	11	18	29.304	29.466	83	80	81	S S W	12.0	0.10	K	p, g
	July 6th	10	29.739	29.757	83	74	37	S W by W	14	...	...	c
	11	18	29.603	29.618	85	78	71	S by W	12	...	...	cloudy.
	8th	10	29.764	29.784	90	77	63	W	11	0.30	...	m
	11	18	29.626	29.658	95	81	61	S W	14	...	...	c
	7th	10	29.781	29.811	87	71	51	S S W	14	...	...	a
	11	18	29.607	29.607	92	75	42	W S W	8	...	...	cloudy.
	8th	10	29.820	29.839	88	73	40	W	1.0	...	...	a
Cuttack.	9th	10	29.716	29.745	94	73	39	S W by S	10	...	...	cloudy.
	11	18	29.530	29.560	91	71	33	W by S	13	...	...	cloudy.
	10th	10	29.702	29.723	100	73	21	W	13	...	...	a
	11	18	29.610	29.640	91	73	39	W S W	13	...	...	a
	11th	10	29.670	29.710	98	73	31	W S W	8	...	...	cloudy.
	11	18	29.702	29.723	93	76	40	S W by W	17	...	...	m
	12th	10	29.604	29.714	97	74	30	S W by S	10	...	...	c
	July 6th	10	29.403	29.545	94	79	70	W S W	4.5	...	K, N, C	
	11	18	29.375	29.437	86	78	64	W S W	4.7	...	K, N, C	
	7th	10	29.400	29.543	80	77	80	W S W	3.4	1.50	K, N, C	
	11	18	29.370	29.453	84	78	75	W S W	3.0	...	K, N	d
	8th	10	29.500	29.583	86	79	76	W S W	3.4	...	K, K, C	
Aris.	11	18	29.413	29.494	81	78	88	N N E	4.8	...	N	r
	9th	10	29.505	29.591	81	76	78	S W	4.2	0.80	K, N, C	
	11	18	29.425	29.508	82	78	82	S W	7.4	...	N	d
	10th	10	29.483	29.575	84	78	75	W	5.7	...	K, N, C	
	11	18	29.407	29.489	87	79	88	W S W	5.5	...	K, K	
	11th	10	29.503	29.585	84	78	75	W S W	2.9	...	K, S	
	11	18	29.402	29.483	87	80	83	W S W	5.5	...	K, K, K	
	12th	10	29.427	29.508	88	79	72	W S W	4.3	...	K, C	
	11	18	29.447	29.528	85	80	79	S W	4.1	...	K, N	
	July 6th	10	29.677	29.899	83	78	82	S	1.8	1.40	...	p, g
	11	18	29.406	29.818	70	77	80	S	4.8	0.70	...	p, g
	7th	10	29.707	29.728	81	80	87	S K	2.1	1.70	...	b, g
Aris.	11	18	29.633	29.655	80	78	91	S W	4.3	...	...	p, b
	8th	10	29.739	29.753	84	81	87	S	1.0	4.00	...	p, b
	11	18	29.600	29.683	79	77	95	S W	2.1	0.10	...	p
	9th	10	29.670	29.692	81	78	86	S S W	3.0	0.50	...	g
	11	18	29.580	29.702	81	79	91	S S W	2.3	0.10	...	p, g
	10th	10	29.618	29.689	84	80	84	S S W	1.1	0.50	...	p, b
	11	18	29.519	29.551	83	80	91	S S W	2.8	0.10	...	p
	11th	10	29.678	29.593	81	80	95	S W	0.5	1.00	...	p, b
	11	18	29.476	29.447	84	80	83	S S W	2.5	0.10	...	u
	12th	10	29.508	29.540	89	81	95	S W	1.0	0.80	...	u
	11	18	29.479	29.501	85	81	95	S S W	1.8	0.10	...	a

* Velocity of wind in miles per hour.

Abstract of Observations as received in the Meteorological Reporter's Office, Calcutta, during the month of May 1873.

N.B.—The barometric data are reduced for temperature, and not for height, above sea level.

STATIONS.	BAROMETER.				RADIATION.				TEMPERATURE OF AIR.				HUMIDITY.				RAINFALL.	
	Height above sea-level.	Mean of.			Solar.		Gross Nocturnal.		Mean of month.	Mean of.			Mean.	Mean of.			In inches.	No. of days.
		4 hours.	10 hours.	24 hours.	Range.	Max.	Min.	Day.		Night.	4 hours.	10 hours.		24 hours.				
Port Blair	100	29.754	29.797	29.712	12th	164.0	...	...	129	80.4	86.9	87.6	...	...	74	71	19.37	13
Madras	97	29.755	29.813	29.697	...	...	...	...	...	...	81.2	88.4	...	...	54	63	0.02	2
Vizagapatnam	91	29.726	29.705	29.760	11th	117.0	...	...	...	...	83.2	89.3	...	...	71	80	3.40	2
Bombay	91	29.737	29.700	29.787	28th	163.0	71.4	74h	...	...	84.2	89.0	...	...	83	11.52	7	
Madras Point	18.7	29.711	29.685	29.766	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	90	29.651	29.631	29.632	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Seipore Island	8	29.713	29.688	29.765	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Chittagong	90	29.662	29.666	29.736	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...	...	...	85.3	89.3	...	...	81	69	3.86	2
Calcutta	18.11	29.671	29.671	29.748	16th	104.0	74.8	...										

Mean pressures and temperatures of the preceding table reduced to sea level, with anemometric results and observations of sky serenity.

STATIONS.	Mean barometric pressure reduced to sea-level.	Mean temperature reduced to sea-level.	Wind.								Percentage and Resultant.	Mean velocity daily.	Mean serenity.
			North.	North-East.	East.	South-East.	South.	South-West.	West.	North-West.	Calm.		
Port Blair	29.857	83.1	...	16	...	8	...	24	1	19	...	30 S, 83 W	620
Madras	29.782	84.8	...	...	1	35	21	5	...	...	...	87 S, 21 E	2731
Vizagapatam	29.786	86.3	...	...	1	18	33	15	50	4	...	42 S, 48 W	1235
Akyab	29.766	84.4	2	1	7	8	12	18	40	19	...	64 S, 70 W	417
Palas Point	29.730	84.9	...	9	1	4	12	34	14	6	5	50 S, 73 W	...
Cuttack	29.712	88.7	1	8	3	7	37	31	6	6	20	46 S, 18 W	112.8
Sanger Island	29.716	86.8	8	3	5	7	49	40	6	3	...	61 N, 20 W	32.00
Chittagong	29.774	83.3	8	0	12	13	24	38	8	4	0	39 S, 13 W	153.8
Calcutta	29.705	87.0	...	7	7	0	41	31	17	8	...	51 S, 23 W	186.8
Jessore	29.685	87.3	...	...	3	12	26	13	6	2	...	68 S, 7 W	114.1
Dacca	29.723	83.4	1	5	11	10	67	21	2	2	5	6 S, 7 E	130.0
Bilchar	29.730	81.9	11	18	30	10	6	8	20	9	17	16 N, 44 E	74.1
Hazareebaugh	29.841	83.0	7	6	0	11	7	11	12	33	...	30 N, 61 W	210.2
Berhampore	29.680	90.0	9	5	7	21	30	20	11	6	10	38 S, 4 W	143.8
Gya	Not read.	...	...	...	...	...	...	...	...	...	...	...	...
Patna	29.605	91.6	...	7	21	4	...	1	20	18	13	20 N, 37 W	9.16
Monaghyr	29.600	89.9	6	12	34	10	2	14	28	14	4	4 N, 14 E	107.5
Darjeeling	...	...	1	4	19	10	11	24	37	7	2	32 S, 30 W	6.26
Gowalparah	29.729	81.1	4	2	32	12	20	7	34	7	...	20 S, 8 W	108.2
Bombay	29.642	92.0	0	3	10	8	4	38	11	30	...	20 N, 77 W	97.8
Borkee	29.662	87.2	...	12	1	10	...	43	2	24	50	7 N, 50 W	111.9

NOTE.

Barometric Pressure.—The pressures in column 2 of the above table for all stations below 500 feet are reduced from those given in column 3 of the table on the previous page by adding the weight of a column of air of the corresponding temperatures given in column 17. For stations of above 500 feet elevation the reduction is made by Dippe's tables as given in Guyot's "Meteorological and Physical Tables." The temperatures at the sea level are taken from column 3 of the above table.

Temperature.—The temperatures in column 3 are reduced from those in column 17 on the preceding page by adding 1° Fahr. for every 350 feet.

Wind Resultant.—The resultant wind direction and the comparative predominance are calculated from the whole number of wind observations recorded during the month. The relative predominance in the direction of the resultant is given as a percentage of the whole number of observations. The direction is computed in the usual way by Lambert's formula.

Serenity.—This column gives the average proportion of unclouded sky; a cloudless sky being indicated by 10, and one completely overcast by 0.

The above being all comparable, afford the data for constructing a meteorological chart for the month, which shall show the isobaric and isothermal lines and the resultant wind directions, which last may be represented by arrows of varying length, proportioned to the prevalence of the wind. To these may be added the rainfall from the previous tables.

CALCUTTA,
The 5th July 1873.

HENRY F. BLANFORD,
Meteorological Reporter to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Surveyor-General's Office, Calcutta, from 8th to 14th July 1873.

Month.	Date.	Mean reduced barometer.	THERMOMETER.			Mean dry bulb.	Mean wet bulb.	Computed mean dew-point.	Mean degree of humidity.	Wind.			Rain.	Moon's phase.	GENERAL REMARKS.
			Highest reading.	Lowest reading.	Max. solar radiation.					Prevailing direction.	Max. pressure.	Daily velocity.			
		Inches.	°	°	°	°	°	°			B	Miles.	In.		
July	8th	29.623	87.6	81.0	132.0	83.6	81.6	80.1	0.80	S S E & S E	...	158.1	0.43	...	Overcast, cumuli, cumu- lunt and strati. Rain at 6½, from 12½ A.M. to 2 P.M., at 4½, & 5½ P.M.
	9th	29.78	88.4	81.4	147.0	83.5	81.8	79.8	78	S & S S E	...	68.9	...	...	Clouds of different kinds. Thunder between 1 & 2 P.M. Discontinued at mid- night, 2½, & 4 P.M.
	10th	29.59	92.0	80.2	139.0	84.8	81.2	78.7	61	S by E & S W	...	112.9	0.42	○	Cirri, cirrostrati, cumuli, and overcast. Thunder between 5 & 8, and at 11½ P.M. Lightning at 11 P.M. Slight rain from 6 to 11½ P.M.
	11th	29.51	90.0	80.5	141.3	83.2	81.2	79.7	69	S W & S S W	...	106.3	0.62	...	Chiefly overcast. Light- ning at midnight, 3 A.M., & 11½ P.M. Slight rain after intervals.
	12th	29.28	87.0	80.0	131.5	82.4	80.5	78.2	70	S S W & Variable.	0.9	98.9	1.10	...	Strati and overcast. Thunder between 1½ & 3 P.M. Lightning from midnight to 2 A.M., & at 1½ P.M. Rain from 1½ to 3 P.M.
	13th	29.87	86.6	80.5	137.8	82.9	81.2	80.1	92	S S W & S W	...	47.0	0.10	...	Strati & overcast. Slight rain from 1 to 2½, and at 5 P.M.
	14th	29.27	83.0	79.0	...	81.9	79.9	78.0	98	S W & W S W	...	13.9	0.19	...	Chiefly overcast. Slight rain after intervals.

The mean barometer, as likewise the dry and wet bulb thermometer means, are derived from the twenty-four hourly observations made during the day.

The dew-point is computed with the Greenwich constants. The figures in column 10 represent the humidity of the air, the complete saturation of which being taken at unity. The receiver of the lower rain gauge is 1½ feet, and that of the anemometer 70 feet 10 inches above the level of the ground. The velocity of wind, as indicated by Robinson's anemometer, is registered from noon to noon.

The extreme variation of temperature during the past seven days	...	12.4
The max. temperature during the past seven days	...	92.0
The max. temperature during the corresponding period of the past year	...	92.6
The mean humidity during the past seven days	...	0.89
The mean humidity during the corresponding period of the past year	...	0.83
		Inches.
The total fall of rain from 8th to 14th	{ by lower rain gauge	2.74
	{ by anemometer gauge	2.60
Ditto ditto ditto,	average of nineteen previous years	2.44
Ditto ditto between the 1st January and the 14th July		15.54
Ditto ditto ditto,	average of nineteen previous years	89.49

GORENAUTH SEN,
In charge of the Observatory.

The 15th July 1873.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY—MAIN LINE.

Approximate Return of Traffic for Week ended 28th June 1873, on 1,380 miles open.

	COACHING TRAFFIC.				MERCHANDISE AND MINERAL TRAFFIC.				Total traffic receipts.
	Number of passengers.	Coaching receipts.		Weight carried.	Receipts.				
		Rs. A. P.	£ s. d.		* Mds. Srs.	* Rs. A. P.	£ s. d.	£ s. d.	
Total traffic for the week ...	119,830	1,24,605 0 3	11,788 18 2	687,876 11	8,05,425 3 0	27,997 2 8	30,785 14 10		
Or per mile of railway ...	86,821	89,876 8 7	8,468 19 2	5,016,800 20	5,899,372 0 3	201,334 2 8	1,225,157 1 10		
For previous 24 weeks of half-year ...	2,907,801	40,37,302 8 10	370,591 11 4	19,416,930 20	22,07,708 10 0	892,331 5 4	1,201,022 16 8		
COMPARISON.									
Total for corresponding week of previous year ...	96,097	1,07,083 2 1	9,870 19 1	687,927 30	3,23,736 4 2	39,075 16 8	30,546 15 7		
Per mile of railway, corresponding week of previous year ...	...	84 2 1	7 16 3	...	252 13 8	28 3 4	59 17 11	
Total to corresponding date of previous year ...	2,886,668	41,41,428 0 0	379,630 18 6	17,621,428 30	16,62,438 7 0	6,93,724 14 1	1,266,355 10 9		

* Mds. 27,040 and Rs. 6,903 added on account of difference between approximate and audited returns of previous weeks.

EAST INDIAN RAILWAY—JUBBULPORE LINE.

Approximate Return of Traffic for week ended 28th June 1873, on 223½ miles open.

		Rs. A. P.	£ s. d.	* Mds. Srs.	* Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week ...	4,071	6,533 10 0	808 14 4	73,804 30	17,835 14 0	1,500 2 7	2,183 6 11
Or per mile of railway ...	1,80,162	3,00,723 2 7	35,846 12 0	1,043,155 0	5,19,100 7 6	50,270 17 4	85,720 9 10
For previous 24 weeks of half-year ...	1,12,410	3,88,380 15 4	56,919 10 10	2,017,289 30	5,00,745 8 3	61,930 10 11	87,906 10 0
COMPARISON.							
Total for corresponding week of previous year ...	3,613	10,800 8 8	950 10 10	62,777 0	16,506 10 0	1,502 14 8	2,408 15 6
Per mile of railway, corresponding week of previous year ...	...	49 5 10	4 6 8	...	73 5 0	6 14 0	11 5 2
Total to corresponding date of previous year ...	1,40,811	4,29,072 3 11	58,506 12 6	1,802,518 30	5,30,111 10 4	40,743 11 4	87,334 3 0

* Mds. 5,425 and Rs. 1,870 added on account of difference between approximate and audited returns of previous weeks.

NULHATTEE STATE RAILWAY.

Approximate Return of Traffic for the last 2 days ended 30th June 1873, on 27½ miles open.

		Rs. A. P.	£ s. d.	Mds. Srs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the two days ...	316	270 0 0	20 14 0	1,524 0	90 0 0	0 18 0	30 18 0
Or per mile of railway ...	48,404	36,076 0 0	3,807 16 0	108,011 0	13,362 0 0	1,325 4 0	4,801 0 0
For previous 20 weeks of half-year ...	42,784	80,627 0 0	3,668 11 0	102,632 0	15,331 0 0	1,338 3 4	4,921 14 0
COMPARISON.							
Total for corresponding week of previous year ...	...	...	...	...	...	...	...
Per mile of railway, corresponding week of previous year ...	...	...	...	...	...	...	...
Total to corresponding date of previous year ...	...	...	...	...	...	...	...

EAST INDIAN RAILWAY—MAIN LINE.

Approximate Return of Traffic for last 2 days of June 1873, on 1,240 miles open.

		Rs. A. P.	£ s. d.	Mds. Srs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the two days ...	34,280	30,743 11 6	3,553 5 0	1,61,690 0	60,220 8 8	6,071 0 9	9,480 4 3
Or per mile of railway ...	2,967,901	40,87,363 8 10	3,73,001 11 6	19,914,980 20	97,01,780 10 8	8,68,351 0 4	12,04,920 16 0
For previous 24 weeks of half-year ...	3,442,083	61,34,100 4 4	5,78,800 14 10	19,861,620 20	97,08,625 2 0	8,93,442 4 1	12,74,862 0 11
COMPARISON.							
Total for corresponding 1 day of previous year ...	14,871	15,348 4 11	1,410 8 9	63,082 20	40,348 0 7	4,220 7 11	5,680 10 8
Per mile of railway, corresponding 1 day of previous year ...	...	78 0 4	1 8 0	...	30 2 1	3 6 3	4 8 2
Total to corresponding date of previous year ...	3,600,830	61,56,811 10 11	581,041 1 11	17,706,161 10	97,08,701 7 7	8,90,084 0 0	12,71,000 7 6

EAST INDIAN RAILWAY—JUBBULPORE LINE.

Approximate Return of Traffic for last two days of June 1873, on 223½ miles open.

	COACHING TRAFFIC.			MERCHANDISE AND MINERAL TRAFFIC.			Total traffic receipts.
	Number of passengers.	Coaching receipts.		Weight carried.	Receipts.		
		Rs. A. P.	£ s. d.	Mds. Hrs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the days	1,335	1,800 12 9	371 2 6	18,000 30	4,685 7 9	467 13 4	509 15 10
Or per mile of railway	1,335	8 5 8	0 15 4	80 15 4	20 14 0	2 15 8	2 15 7
For previous 24 weeks of half-year	1,33,814	9,901,250 13 4	50,000 10 10	2,017,200 30	5,05,745 4 3	51,000 19 11	52,000 19 10
Total for 24 weeks	1,31,161	9,95,133 10 1	30,210 13 4	2,000,250 10	6,70,410 14 8	68,207 18 3	70,907 18 2
COMPARISON.							
Total for corresponding 1 day of previous year	600	1,634 2 9	131 11 0	7,530 30	2,342 4 3	214 11 2	255 11 2
Per mile of railway corresponding 1 day of previous year	600	0 14 7	0 12 8	12 30	3 7 3	0 10 2	0 11 1
Total to corresponding date of previous year	1,40,871	4,21,010 0 8	30,404 1 5	1,800,000 30	5,70,433 14 7	40,340 0 6	50,000 0 11

CALCUTTA AND SOUTH-EASTERN STATE RAILWAY.

Approximate Return of Traffic for last 2 days ended 30th June 1873, on 28 miles open.

		Rs. A. P.	£ s. d.	Mds. Hrs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week ...	1,379	247 0 0	25 14 0	7,210 0	136 0 0	13 12 0	30 0 0
Or per mile of railway ...	1379	88,197 0 0	3,010 14 0	4,000,000 0	13,000 0 0	1,000 10 0	4,000 12 0
For previous 24 weeks of half-year ...	1,379	30,444 0 0	5,041 8 0	800,100 0	10,045 0 0	1,004 10 0	4,000 10 0
COMPARISON.							
Total for corresponding week of previous year ...	1,000	40 12 4	0 10 7	10,301 5	500 4 2	82 10 0	50 10 1
Per mile of railway, corresponding week of previous year ...	0	2 7 2	0 5 0	360 33	18 12 2	1 17 4	1 5 8
Total to corresponding date of previous year ...	1,00,000	20,070 4 0	2,807 12 0	4,40,000 20	13,007 10 8	1,300 15 11	4,000 10 0

NULHATTEE STATE RAILWAY.

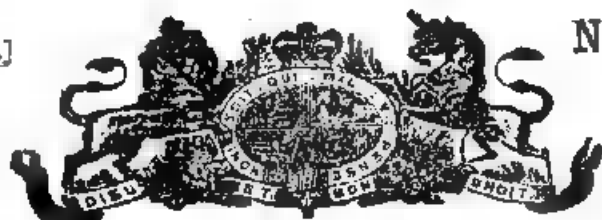
Approximate Return of Traffic for the first 5 days week ended 5th July 1873, on 27½ miles open.

		Rs. A. P.	£ s. d.	Mds. Hrs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the 5 days week ...	800	101 11 0	03 2 0	2,312 0	222 0 0	21 4 0	54 0 0
Or per mile of railway ...	80	23 0 0	2 0 0	80 0	8 0 0	0 10 0	2 0 0
For previous week of half-year ...	800	101 11 0	03 2 0	2,312 0	222 0 0	21 4 0	54 0 0
COMPARISON.							
Total for corresponding week of previous year ...	800	101 11 0	03 2 0	2,312 0	222 0 0	21 4 0	54 0 0
Per mile of railway, corresponding week of previous year ...	800	101 11 0	03 2 0	2,312 0	222 0 0	21 4 0	54 0 0
Total to corresponding date of previous year ...	800	101 11 0	03 2 0	2,312 0	222 0 0	21 4 0	54 0 0

CALCUTTA AND SOUTH-EASTERN STATE RAILWAY.

Approximate Return of Traffic for first 5 days ended 6th July 1873, on 28 miles open.

		Rs. A. P.	£ s. d.	Mds. Hrs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week ...	5,747	103 0 0	03 10 0	16,100 0	275 0 0	27 10 0	60 0 0
Or per mile of railway ...	134	22 0 0	3 4 0	561 0	40 0 0	1 0 0	0 4 0
For previous weeks of half-year ...	5,747	103 0 0	03 10 0	16,100 0	275 0 0	27 10 0	60 0 0
COMPARISON.							
Total for corresponding week of previous year ...	5,747	103 0 0	03 10 0	16,100 0	275 0 0	27 10 0	60 0 0
Per mile of railway, corresponding week of previous year ...	137	22 15 8	3 7 0	400 34	12 2 3	1 4 3	0 11 0
Total to corresponding date of previous year ...	5,747	103 0 0	03 10 0	16,100 0	275 0 0	27 10 0	60 0 0



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JULY 23, 1873.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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DESPATCH OF SECRETARY OF STATE ON RECENT EDUCATIONAL MEASURES IN BENGAL.

No. 278, dated Fort William, the 4th July 1873.

Memo. by—COLONEL B. E. BACON, for Officiating Under-Secretary to the Government of India, Home Department.

Copy forwarded to the Government of Bengal, in continuation of the Resolution of the Government of India, No. 30, dated the 31st January 1873, for information, and for communication to the several memorialists.

No. 3, dated India Office, London, the 4th June 1873.

From—HIS GRACE THE DUKE OF ARGYLL, K.T., Her Majesty's Secretary of State for India,

To—His Excellency the Right Hon'ble the Governor-General of India in Council.

MY LORD,

THE despatch of Your Excellency in Council, dated the 14th of February, No. 1 of 1873, transmitting a Resolution of the Government of India on some memorials addressed to it by various Associations, respecting certain educational measures recently adopted by the Government of Bengal, has been considered by me in Council.

2. The Resolution presents, in the first place, a comprehensive sketch of the views of the late Court of Directors and of Her Majesty's Government relative to education since 1854. It then proceeds to state various objections urged by the memorialists against the recent measures of the Government of Bengal, and concludes by showing that the measures against which objections have been advanced are not in antagonism to the policy of the Home Government, or to the broad interests of the population of India.

3. I must express my complete satisfaction with the tone of this Resolution.

4. In common with Your Excellency in Council, I view with pleasure the evidence furnished by these memorials of the deep interest taken by the most intelligent inhabitants of Bengal in all Government measures respecting education. A watchful, intelligent, even though occasionally erroneous, criticism by the people on national institutions so deeply affecting their welfare, cannot but be of the highest service to a just and progressive Government.

5. The very difficult problem for solution in India is the method of diffusing education amongst the masses without injuring the success which has hitherto attended collegiate instruction; and as the State funds available for education are necessarily limited, it is not to be wondered at that any apprehended transfer from one branch to another should give rise to considerable controversy and to much opposition.

6. On this part of the subject I thought it right in my despatch of the 26th of May 1870 to point out that erroneous views appeared to prevail in some quarters as to the ability of students in the Bengal Colleges to pay themselves the charges of superior education, and the justice of this observation seems to be now recognized.

7. It will be found, I believe, upon a general review of educational expenditure in Bengal, that the amount devoted to high education is not absolutely less than it was, but only less in proportion to the amount bestowed on primary education; in other words, that high education has not received less, although primary education may have received more. There may have been a re-arrangement of the expenditure on high education, but the total fund devoted to it has not diminished.

8. The only one of the Lieutenant-Governor's reforms which can be at all open to question is that relative to the study of Sanscrit, but I am very far from considering the measures of the Lieutenant-Governor on the subject to be impolitic. I am disposed to regard them as just and proper, but I am at the same time glad to observe that they are to be regarded as experimental. They have already been slightly modified, and Your Excellency in Council has expressed your confidence that the Lieutenant-Governor will watch the results of the change, in order that the opportunities given for the study of Sanscrit shall be such as fully to meet the requirements of the University standard.

9. In conclusion, I must express my concurrence with Your Excellency in Council in considering that the Lieutenant-Governor has not departed from the broad line of educational policy which has been laid down by Her Majesty's Government during a long series of years, and in cordially approving the steps His Honor has taken to give a more practical tone to education in Bengal. The advance which has been made in the encouragement of the primary instruction of the people is also a subject for congratulation.

**PRICE CURRENT OF FOOD-GRAINS AND SALT IN THE UNDERMENTIONED DISTRICTS
OF BENGAL ON THE 15th JULY 1873.**

Prices Current of Food-grains and Salt in the undermentioned

		QUANTITIES PER RUPEE																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.								
DIVISIONS.	DISTRICTS.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.						
BENGAL.																			
Western Districts.																			
BURDWAN	1 Burdwan	13 8	21 0	16 0	25 0	25 0	21 0	10 0	20 8	23 12	17 0	21 4	23 4						
	2 Banchura	13 0	15 8	14 12	22 8	22 8	20 0	14 0	14 0	13 0	10 0	18 0	14 12						
	3 Berhampore	14 12	11 8	17 0	...	30 0	23 0	12 8	18 8	19 0	18 0	18 0	21 0						
	4 Midnapore	11 8	11 8	12 6	...	...	12 0	20 0	20 0	18 8	25 0	25 0	29 0				
	5 Howrah	13 0	15 0	16 0	...	...	...	10 0	20 0	13 0	18 8	18 8	20 0			
	Howrah	16 0	16 0	16 0	25 0	25 0	22 0	13 8	16 8	16 0	20 0	20 0	20 0						
Central Districts.																			
PRESIDENCY	6 24-Perghunab	12 6	13 6	13 6	20 0	20 0	20 0	8 0	8 0	8 8	18 12	18 12	20 0						
	7 Nuddea	14 8	14 8	14 12	32 0	32 0	32 0	16 0	16 0	16 12	17 12	17 12	18 14						
	8 Jangal	14 0	13 6	18 4	...	...	...	18 0	20 0	18 0	23 8	25 8	17 12			
RAJSHAHY	9 Moondahabul	16 0	16 0	20 0	...	...	...	15 0	16 0	18 8	19 0	19 0	28 0			
	10 Dinapore	14 0	14 8	13 0	22 8	22 8	21 0	20 0	20 0	23 0	24 0	24 0	28 0						
	11 Malda	17 0	18 0	10 0	36 0	36 0	30 0	18 0	17 8	24 0	20 0	18 0	25 0						
	12 Rajshahy	15 0	16 0	18 14	37 8	32 0	41 4	15 0	15 0	12 0	21 0	21 8	24 0						
	13 Rangpur	16 0	16 0	16 5	...	...	...	14 10	15 0	14 0	25 14	25 14	21 0			
	14 Bograh	15 12	16 12	16 0	...	...	...	16 12	16 8	21 0	28 4	24 0	30 8			
COCH BEHAR	15 Patna	20 0	20 0	24 0	...	...	...	12 0	12 0	15 0	28 4	28 4	28 8			
	16 Darjeeling	6 0	6 0	8 0	10 0	10 0	10 0	5 0	10 0	13 0	18 0	18 0	18 0						
	Jhalpore	12 0	11 0	...	...	...	...	15 0	13 0	...	20 0	16 0	...		
	Cooch Behar.*	...	...	...	...	...	...	...	...	...	...	...	...
Eastern Districts.																			
DACCA	18 Dacca	13 8	13 8	16 0	23 0	21 0	23 10	22 0	23 0	21 0	28 0	28 8	30 0						
	19 Faridpur	20 0	20 0	26 0	...	10 0	...	14 0	10 0	10 0	24 0	23 8	26 0						
	20 Backergunge ... ..	...	...	...	...	...	...	13 0	13 0	...	26 0	26 0	...
	21 Mymensing	8 12	10 0	20 0	...	...	...	22 0	22 8	25 0	31 8	33 0	38 0			
	22 Sylhet	10 0	10 0	10 4	11 8	11 8	11 8	24 0	24 0	21 8	34 0	34 0	40 0						
CHITTAGONG	23 Cooch	8 14	8 14	9 0	...	...	...	24 10	24 10	24 10	29 1	29 10	32 0			
	24 Chittagong	11 0	11 0	13 0	...	...	...	16 0	16 0	14 0	24 0	24 0	22 0			
	25 Nakhelly ... ..	...	...	...	...	...	...	18 0	18 0	18 0	24 0	24 0	27 8
	26 Tipperah	13 8	13 0	13 0	...	...	...	20 0	20 0	20 0	29 0	28 0	32 8			
	Chittagong Hill Tracts	13 5	13 5	13 5	...	...	...	13 5	13 5	13 5	17 8	17 8	17 8			
	Hill Tipperah	10 0	10 0	11 4	...	...	...	20 0	22 8	22 8	28 6	28 8	40 0			
BEHAR.																			
PATNA	28 Patna	16 0	16 0	21 0	28 0	27 0	31 4	10 0	10 0	11 0	17 8	17 0	21 0						
	29 Gaya	14 0	13 8	17 0	22 8	22 0	31 0	12 0	11 0	12 0	18 0	13 0	22 8						
	30 Shahabad	15 0	15 0	18 0	23 0	22 0	23 0	13 0	14 0	11 0	16 0	16 0	16 0						
	31 Teoga	13 0	13 0	18 0	23 0	22 0	23 0	16 8	17 0	14 0	18 8	17 0	16 0						
	32 Saran	14 0	14 0	18 0	23 0	24 0	21 0	12 8	12 8	13 0	16 8	16 8	18 0						
BHAUGULPORE	33 Champarna	16 0	16 0	19 0	33 0	33 0	38 0	12 0	12 0	13 0	18 0	18 0	17 0						
	34 Monghyr	17 0	17 8	10 0	31 5	31 5	31 5	12 8	12 8	13 0	16 8	16 8	18 8						
	35 Bhogulpore	16 12	16 0	17 11	37 12	30 4	31 4	15 2	15 2	15 2	17 0	16 4	16 9						
	Furruck	13 6	14 0	12 0	26 0	26 0	30 0	16 0	17 0	15 0	19 0	19 0	31 0						
	South Perghunab	14 0	14 0	15 0	...	...	...	13 0	14 0	18 0	10 0	16 0	29 8			
ORISSA.																			
ORISSA	38 Cuttack	15 12	14 8	15 12	...	...	...	23 10	23 10	14 0	28 14	31 8	17 8			
	39 Puri	13 12	13 2	14 7	...	...	...	21 0	21 0	17 1	34 2	31 8	23 10			
	40 Balasore	12 0	12 0	...	...	...	...	10 0	12 0	...	38 0	38 0	...		
CHOTA NAGPORE.																			
South-West Frontier Agency.																			
CHOTA NAGPORE	41 Hazarechaugh	13 8	13 0	16 12	20 0	22 0	23 4	10 0	10 0	12 0	14 0	15 0	18 4						
	42 Telhargu	14 0	14 0	14 0	16 0	16 0	25 0	12 0	15 0	20 0	18 0	18 0	24 0						
	43 Singbhum	18 0	18 0	22 0	24 0	24 0	29 0	18 0	20 0	27 0	24 0	22 0	40 0						
	44 Munibhum	13 0	15 0	10 0	...	24 0	24 0	15 0	16 0	16 0	18 0	21 0	20 8						
ASSAM AND ADJACENT HILLS.																			
ASSAM	45 Gualpara	25 0	26 8	20 0	...	...	...	18 0	16 0	13 0	25 0	20 0	20 0			
	46 Karimg.*	...	...	...	...	...	...	...	...	...	...	...	...
	47 Dibrugarh.*	...	...	...	...	...	...	...	...	...	...	...	...
	48 Nowgong	10 0	10 0	16 0	...	...	...	12 0	12 0	13 0	18 0	18 0	16 0			
	49 Sochaung.*	...	...	...	...	...	...	...	...	...	...	...	...
	50 Lakhimpore.*	...	...	...	...	...	...	...	...	...	...	...	...
	51 Naga Hills.*	...	...	...	...	...	...	...	...	...	...	...	...
	52 Khasi and Jynteah Hills.*	...	...	...	...	...	...	...	...	...	...	...	...
	Garo Hills.*	...	...	...	...	...	...	...	...	...	...	...	...

* Return not received.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 19th July 1873.

No.	District.	Date of return from each district.	Rainfall at Sadler Station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	Remarks.
BENGAL.						
<i>Western Districts.</i>		1873.				
BUREWAN DIVISION.	1 Burdwan	July 22nd*	4.47	Weather cloudy, but sultry.	Amun crop being transplanted. Grain dearer.	Fever prevalent.
	2 Bancoorah	" 19th	6.86	Very heavy showers, a storm blew on the night of the 18th, beginning from the north-east and veering round to the south-west.	The rain has secured the rice crop for the present, and the general prospects are good.	
	3 Beerbhoom	" 19th	10.87	Plentiful and seasonable rain in the centre and west of the district; up to the 16th the east had not shared it sufficiently.	Where there has been rain the agriculturists are busy and prospects good. But the want of sufficient rain in the east has retarded operations, and if it continues will prove fatal to the rice crop of those parts.	
	4 Midnapore	" 19th	6.56	Over six inches of rain has fallen at the sadler station on the 17th and 18th, and the returns from the sub-divisions indicate that it has been universal.	The heavy rain that has just fallen will effectually prevent any further injury to the crops for the present on account of drought, though some little loss has previously occurred.	The Oossay is now in flood and nearly as high as last year when the head sluice at Panchkora gave way. It is still rising; this indicates very heavy rain in the north-west.
	5 Hooghly	" 19th	3.66	Cloudy, and rain more or less daily.	The prospects of the aus are better. The prospect of amun crop is satisfactory.	
PRESIDENCY DIVISION.	Howrah	" 19th	6.73	Rain more or less every day except at Bagnan and Shampore, where it rained on four days only.	Rice, sugarcane, and jute have all improved. The latter in some places has commenced to flower prematurely; the crop will not be equal to that of last year.	
	<i>Central Districts.</i>					
	6 24-Pergunnahs	" 22nd	3.72	Clear, with an almost daily fall of rain.	Crops doing well. Transplantation of amun has commenced.	General health good. No fresh cases of small-pox reported at Balikhara.
RAJSHAHY DIVISION.	7 Nuddea	" 19th	2.38	Seasonable	The rain has done much good to all crops, but it is too late to repair all the damage done by drought. Indigo manufacturing has begun. The plant is backward, but an average outturn is said to be expected.	
	8 Jessore	" 19th	1.0	Cloudy, with fine driving rain on the 18th; wind generally south-east; on the 18th the wind began from north-east and veered to south-east. The barometer fell very low but has risen again.	The prospects have generally improved with the rains, but in the south some damage has been caused by their holding off so long.	
	9 Moorshedabad	" 19th	3.37	A good deal of rain throughout the district. Weather hot, but fresh breeze occasionally.	The prospects of the aus crop and indigo have considerably improved. The amun sowings are also more promising. The manufacture of indigo has commenced.	A few cases of small-pox still.
RAJSHAHY DIVISION.	10 Dinagapore	" 19th	1.24	Stormy and occasional heavy showers, between which it is hot and close.	All crops want more rain, and unless there is a good fall of rain before the middle of August, there will be great difficulty in planting out the winter crop.	

* Telegram of the 22nd July received on the same day.

No.	District.	Date of return from each district.	Rainfall at Sadler station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	Remarks.
BENGAL.—(Contd.)						
<i>Central Districts.—(Contd.)</i>		1873.				
RAJSHAHY DIVISION.—(Contd.)	11 Malda	July 19th	1.79	First three days rainy; the rest hot and dry; strong easterly wind on the last two days.	The bhadoi and amun paddy crops are very backward, but progressing favorably; the rainfall up to date is still unusually small. Indigo manufacturing commenced.	
	12 Rajshahye	" 19th	2.66	Close and still weather during the first five days; wet and stormy towards the end of the week.	The prospects of the amun and aus rice crops are improving, owing to the rain that has fallen this week. Indigo is now being cut; mulberry and sugarcane are doing well.	
	13 Rangpoore	July 19th	1.94	Very little rain has fallen this week.	Only a small quantity of the aus crop has been cut this week. The amun crop is being sown in parts, but much more rain is required for it. The jute has suffered from want of rain.	Return not received.
	14 Bogra					
	15 Fara	" 19th	2.30	Weather close and cloudy with a slight rain.	Crops are much benefited by the rain that has fallen during the week. More rain is wanted for amun dhun. Prospects of crops fair.	
COCH BEHAR DIV.	16 Darjeeling	" 19th	6.0	There were three or four very bright days during the week, with scarcely any rain; when it did rain the downpour was heavy.	The crops continue to progress favorably; but during the past week complaints have been received of want of rain in the Terai. No serious consequences are apprehended.	The locusts mentioned in a previous report are still hovering about. They have done much less injury than might have been expected, and do not seem to have attacked the tea.
	17 Julpigoree	" 19th	0.73	Cloudy, close, and less rain than usual at this time of year.	Bhadoi dhun being cut, is a good crop; jute promising very well; hymonty dhun sowing continues, and the weather has been favorable, though more rain would now be advantageous.	
	Cooch Behar	" 19th	1.29	Generally hot and sunny, but cloudy and showery on some days.	The present weather is favorable for jute and for harvesting the aus rice crop; the latter crop is a poor one owing to want of rain in May. The amun has been planted out in the low grounds only as yet.	
Dacca DIVISION.	<i>Eastern Districts.</i>					
	18 Dacca	" 22nd*	2.24	Weather favorable. There has been more rain this week.	Prospects of crops good, except in the west of the district, where some damage has been done.	
	19 Farroodpore	" 19th	1.86	Generally cloudy with drizzling rain, though at times the fall of rain has been good; not much sunshine during the week.	Crops have revived somewhat by the rain, which has proved very beneficial. The injury to much of the aus, however, cannot be repaired.	The rivers are again rising, and are now higher than they were ever before this year.
	20 Backergunge	" 19th	3.27	Rainy	A considerable amount of rain has fallen during the week, which has improved the prospects of the crops. In most parts of the district, however, the aus crop will be under the average.	
	21 Mymensing	" 19th	0.17	Hot and cloudy, with occasional slight showers.	Unfavorable from want of rain. The aus dhun crop appears to be suffering, and as yet any of the raa or amun crop has been planted. Rain is much needed.	
	22 Sylhet	" 12th	3.53	Cool	Outturn of aus crop will be good. More rain wanted both by tea planters and ryots. If the present weather continues the amun crop will not be very good.	
	23 Chunar	" 12th	4.60	The days hot and sultry, with good deal of rain in the night.	Not enough rain yet. River lower than it ought to be.	

* Telegram of the 22nd July received on the same day.

No.	District.	Date of return from each district.	Rainfall at Sudder station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	REMARKS.
BENGAL.—(Contd.)						
Eastern Districts.—(Contd.)		1873.				
CHITTAGONG DIVISION.	24 Chittagong	July 12th	2.63	There has been but little rain for the time of the year, except on the 6th, when there was a fairly heavy fall. The weather being showery with fine intervals. Much more rain appears to have fallen in the south of the district.	There has not been nearly enough rain for the crops that are now or should be shortly in the ground. A good fall of rain is anxiously looked for. Reports from Cox's Bazar are favorable.	Cholera reported from Bagjan on the Sudder subdivision, and dengue and ordinary fevers from Cox's Bazar.
	25 Naskhally	" 12th	7.55	Weather for the most part rainy, cloudy, and windy, very little sunshine.	Assam and amun dhan progressing favorably.	
	25 Tipperah	" 10th	1.61	Gloomy, with drizzling rain, but heavy rain does not fall.	No harm done as yet, but heavy rain is much wanted. The aus rice is being reaped here and there. It is not a full crop owing to insufficient rain.	
	27 Chittagong Hill Tracts	" 12th	0.47	Cool in the morning and evening, but warm at noon.	Rain is much wanted in all parts of the district. The paddy has suffered from the prolonged drought; maize crop good and ripening.	
	Hill Tipperah	" 12th	0.25	Very hot, more rain wanted.	Fair.	
BEHAR.						
PATNA DIVISION.	28 Patna	" 22nd*	1.84	Weather clear and cloudy, with occasional showers.	The rain that has fallen has greatly benefited the bhadoi, but more is needed for rice crops.	Spurious cases of cholera still continue, and the disease has appeared in an epidemic form in Mikram thanmah jurisdiction.
	29 Gya	" 10th	3.11	Stormy, rainy, and seasonable.	Paddy has been sown and murwa planted out.	
	30 Shahabad	" 19th	3.88	Cloudy with heavy rain during the week.	Bhadoi sown, nursery rice planted, prospects better.	Cholera still in the town, though much less prevalent. Many cases in outlying villages.
	31 Tirhoot	" 19th	3.02	Hot and cloudy	In the north the prospects of bhadoi and aghany crops are good, and the transplanting of dhun is going on. The rain which has fallen during the week has done much good to indigo and other bhadoi crops. More rain wanted.	
	32 Saran	" 19th	6.11	Cloudy with heavy rain; prevailing wind east. On the 18th at 1-15 A.M. a violent gale accompanied by thunder and lightning and heavy rain lasted about half an hour.	Rain general throughout the district. The bhadoi have been well nigh completed; the manufacture of indigo (first cutting) has commenced. Paddy seed is being put in nurseries, the condition and prospects of all the crops have improved, and if the weather remains favorable, fair crops may be looked for.	Cholera continues and small-pox on the decrease.
BHAUGULPORE DIVISION.	33 Chumpana	" 19th	0.10	Very sultry, winds variable between easterly and westerly.	The prospects of the bhadoi crops continue promising. The first cuttings of indigo have commenced.	
	34 Monghyr	" 19th	1.84	High wind with occasional heavy rain.	Improving daily. Ploughing and sowing going on everywhere. It is difficult to get laborers, as all are engaged in the fields.	
	35 Bhanguipore	" 22nd*	1.40	Good rain to the south, but scanty in the north.	Crops generally favorably reported on, but more rain is very necessary. The aghany rice cannot be planted out.	Rivers rising rapidly. General health very good.
	36 Purneah	" 19th	1.0	Stormy lately	Bhadoi crop improving. Aghany waits rain.	
	37 Sonthal Pergunnah	" 19th	4.48	General rain throughout the district.	Prospects very fair at present.	

* Telegram of the 22nd July received on the same day.

No.	District.	Date of return from each district.	Rainfall at Sadler Station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	REMARKS.
ORISSA.						
		1873.				
Orissa Division.	35 Cutback	July 22nd*	1.41	Rain at Jajpore, Kendrapara, and Jaggutsingpore.	Heavy rain urgently needed.	
	39 Poores	" 12th	0.13	Cloudy, with south wind; rain in places. At Khordha, rainfall 1.24.	Weeding is going on in sarad fields in Pergunnahs Kotraling and Lombai. The seed grain sown last week in Pergunnahs Pachhindus and Serna has come up, and looks promising. The young sarad plants of Pergunnahs Lohangore suffering from want of rain. Weeding has commenced in beali fields in certain pergunnahs. Cotton is being gathered. Though the rainfall at Poores has been slight, there has been some rain in the mafussil, so that prospects are not very bad. At Khordha the paddy crops appear promising, but more rain is very soon wanted to commence weeding. Should the weather continue on for some days more as it is now, damage to the crop by blight is apprehended.	Cholera has broken out in some places in the subdivision, but not with too much fury.
	40 Balasore	" 19th	8.50	Steady penetrating rain in moderate but sufficient quantity, except in the south, where it has been rather scanty.	Crops progressing favorably in the south; transplanting a little retarded for want of sufficient rain.	
CHOTA NAGPORE.						
	South-West Frontier Agency.					
	41 Hazaribagh	" 18th	7.03	Rainy and seasonable; prevailing wind north and east.	The rains seem to have set in, and the prospects of the crops have much improved throughout the district.	Small-pox and cholera still prevalent. The latter was last week raging in Gopin, thirty-six miles east of Sadler station.
	42 Lohardugga	" 19th	7.66	Wet and seasonable	The rain has been plentiful and general throughout the district, and the reports of the crops from all parts are very favorable. In Palamow all fairs are removed, and the prospects now are good.	
	43 Singhbhum	" 12th	1.12	Cloudy more or less throughout the week, but rain holding off.	Reports generally unfavorable, and more rain very much wanted. The crops are very backward in consequence of small rainfall, and in some places a good deal of damage has been done.	
	44 Munibhoos	" 19th	8.36	Favorable. Rain has been general all over the district.	The prospects of the crops have considerably improved during the last week.	Small-pox and cholera appear to be on the decrease.
ASSAM AND ADJACENT HILLS.						
	45 Goalparah	" 19th	2.17	The weather was extremely hot and close during the first five days of the week; a few showers of rain since 11th have somewhat cooled the atmosphere.	Want of rain for the cultivation of the winter rice crops is felt everywhere; the state of other crops hopeful.	Public health on the whole good.
	46 Kamroop	" 21st†	Nil.	Weather hot, clear, and oppressive.	Want of rain is much felt. Tea, cotton, and sugarcane crops progressing favorably. Aus crop nearly all reaped. Salas dhun is being planted.	Public health good.

* Telegram of the 22nd July received on the same day.

† Telegram of the 21st July received on the 22nd.

No.	District.	Date of return from each district.	Rainfall at Sudder Station in inches.	Character of the weather in the district as far as known.	State and prospects of the crops at date.	Remarks.
ASSAM AND ADJACENT HILLS.—(Contd.)		1878.				
47	Darrung	July 12th	6.32	Temperature comparatively low; little breeze. Heavy rain.	Ploughing going on; tea prospects favorable.	State of public health a fair average. Isolated cases of cattle disease continue. Some cases of cholera still reported from the Jorhat thanmah circle. A great deal of low fever and bowel complaints flying about, but not of a fatal type. A few cases of cattle murrain still reported. Cattle disease still prevalent.
48	Nowgong	" 12th	6.08	Regular seasonable monsoon since Tuesday last, with very heavy falls of rain at intervals.	Assam dhan crop being reaped, a good crop being anticipated. The cultivation of the salee crop being actively carried on.	
49	Sochaungor	" 12th	3.16	Fair and hot days. Short showers principally at night.	The work for the salee dhan crop goes on slowly; the crop will, it is feared, be a late one.	
50	Luckimpore	" 12th	4.27	Rain fell every morning during the week but one. The horizon was generally covered with large clouds.	Prospects of the crops are good.	
51	Naga Hills	" 5th	0.55	Hot and close, with very little rain anywhere.	The prospects of the late crops in the hills have not improved during the week under report. The hill people are now busy cutting their "kuni" dhan, the outcome of which promises well. Nothing or little has been done to the roopit land in the plains as yet, but there is still time to sow the winter crop.	
52	Khasi & Jynteah Hills	" 12th	0.30	Cloudy, with light rains	Good. Indian corn is being harvested in some parts of the district.	
53	Garo Hills	" 12th	3.94	Showery throughout the week. Not unseasonable, as far as it has been ascertained.	The state of the crops is good, and prospects of the crops good.	

Published for general information.

CALCUTTA, STATISTICAL DEPT.,
The 22nd July 1878.R. KNIGHT,
Asst. Secy. to the Govt. of Bengal.

Weekly Report of Rainfall compiled at the Meteorological Reporter's Office.

Division.	District.	STATION.	Rain from 29th June to 5th July 1873.	Rain from 6th to 12th July 1873.	RAIN FROM 1st JANUARY 1873.		REMARKS.	
					Inches.	Up to date.		
BENGAL.								
Burdwan.	Wardman District.		Inches.	Inches.	Inches.	1873.		
	Burdwan	Wardman	3.80	4.13	22.61	12th July.		
		Outwa	Nil	3.88	14.08	ditto.		
		Chalna	1.40	3.79	18.25	ditto.		
		Good-Hood	1.41	3.48	19.96	ditto.		
		Rameswari	1.43	1.71	11.43	ditto.		
	Bansdoh	Jehanabad	0.05	4.08	12.91	ditto.		
		Bansdoh	1.43	1.10	14.94	ditto.		
		Bansdoh	4.08	3.23	18.78	ditto.		
		Midnapore	3.50	2.44	23.69	ditto.		
		Tinlok	3.87	3.25	15.90	ditto.		
	Midnapore	Gurhatta	3.98	2.71	18.26	ditto.		
		Central	Dr. Collie's Office	1.57	1.05	12.34	ditto.	
		Central	Exe. Engr's Office	1.78	1.27	15.07	ditto.	
	Hooghly	Hooghly	3.17	2.44	18.30	ditto.		
	Howrah	Barampore	1.07	3.23	18.31	ditto.		
		Howrah	1.80	3.30	10.22	ditto.		
Purannah.	General District.							
	24-Purannah	Saugor Island	2.807	1.90	13.837	ditto.		
		Calcutta	1.51	2.94	18.23	ditto.		
		Allpore	2.43	1.51	16.01	ditto.		
		Dispensary	2.85	1.74	14.17	ditto.		
		Jail	2.85	6.13	17.80	ditto.		
		Bansdoh	2.80	1.81	11.21	ditto.		
		Diamond Harbour	4.74	3.23	27.37	ditto.		
		Haripur	0.84	4.90	17.70	ditto.		
		Satkhom	0.71	1.81	19.17	ditto.		
		Bansdoh	3.05	3.10	18.33	ditto.		
	Kudde	Barrackpore	2.22	1.42	18.91	ditto.		
		Dum-Dum	0.33	3.99	10.70	ditto.		
		Kishungpur	1.86	2.17	18.41	ditto.		
		Hongkong	1.18	4.03	16.89	ditto.		
		Meherpur	0.95	2.47	18.05	ditto.		
	Jessore.	Jessore	Choudanagab	0.35	3.00	16.70	ditto.	
Koshtia			1.53	1.42	12.25	ditto.		
Hanaghat			0.13	2.32	17.78	ditto.		
Jessore			1.44	1.91	23.13	ditto.		
Nutali			2.90	1.83	20.44	ditto.		
Jessore		Khoolnash	Nil	3.88	18.34	ditto.		
		Jaidah	3.44	3.10	25.80	ditto.		
		Basirhat	1.33	6.03	25.32	ditto.		
		Mugdoh	1.31	1.45	5.93	ditto.		
		Berhampore	0.37	1.44	7.43	ditto.		
Moorsheadabad		Ramporehant	0.80	2.11	7.06	ditto.		
		City Moorsheadabad	1.95	0.51	10.11	ditto.		
		Juniapore	0.80	4.20	11.34	ditto.		
		Asansol	0.84	5.06	16.19	ditto.		
		Laholla	1.08	2.03	24.32	ditto.		
Dinapore.	Dinapore	Dinapore	0.67	1.37	8.08	ditto.		
		Maldah	1.17	1.23	11.75	ditto.		
		Rajshahi	Nil	2.00	16.76	ditto.		
		Natore	0.14	Not rec.	8.72	6th July.		
		Bungpore	0.62	ditto.	20.89	ditto.		
	Rangpur	Shwanigunge	0.67	3.78	47.06	13th July.		
		Pitalya	0.63	2.71	18.03	ditto.		
		Bogra	0.18	1.09	19.10	ditto.		
		Pabna	0.32	1.03	14.00	ditto.		
		Serajgonj						
Cooch Behar.	Darjeeling	Telegraph Office	Not rec.	Not rec.	23.00	15th June.		
		Hospital	1.90	3.70	20.98	12th July.		
	Julpigore	Julpigore	3.04	2.18	37.25	ditto.		
		Falgunia	12.95	3.35	70.07	ditto.		
		Hodah	4.30	1.45	37.37	ditto.		
	Cooch Behar Tributary State	Cooch Behar	3.63	3.79	70.07	ditto.		
		Bona	17.32	Not rec.	62.40	5th July.		
	Natore District.							
	Dacca.	Dacca	Telegraph Office	3.35	1.43	25.08	12th July.	
			Hospital	3.35	1.73	22.01	ditto.	
			Moorsheadgunge	4.40	3.13	29.30	ditto.	
		Furzedpore	Manickgunge	0.82	2.85	10.48	ditto.	
			Furzedpore	0.14	1.45	23.98	ditto.	
			Gondoo	Nil	2.37	16.09	ditto.	
		Bachargunge	Burraul	3.97	3.16	22.13	ditto.	
			Persepolis	3.14	4.65	20.84	ditto.	
			Madaripore	1.91	1.64	20.60	ditto.	
Paschally			1.13	3.60	30.15	ditto.		
Dowlat Khan			0.84	2.68	31.34	ditto.		
Mymensing.		Mymensing	3.34	2.28	22.06	ditto.		
		Jamshilpore	Nil	1.10	21.51	ditto.		
		Atteah	0.40	1.34	18.43	ditto.		
Sylhet		Kishoregunge	1.37	2.21	30.05	ditto.		
		Sylhet	3.10	3.10	33.40	ditto.		
Cachar		Cachar	3.90	4.50	33.16	ditto.		
	Hylakandy	0.73	Not rec.	44.16	3th July.			
	Koyah	Not rec.	1.87	30.16	12th July	Not received 25th June to 5th July.		
Chittagong.	Chittagong	Telegraph Office	0.80	3.80	24.04	ditto.		
		Jail	0.90	2.61	25.86	ditto.		
		Cox's Bazar	3.77	17.77	69.96	ditto.		
		Nankhally	2.68	7.06	80.78	ditto.		
		Comilla	2.71	1.30	34.05	ditto.		
		Bhaimanbarah	0.80	0.70	24.28	ditto.		
		Bhaimanbarah Mill	3.35	0.40	27.80	ditto.		
Hill Tipperah	Hill Tipperah	1.50	0.25	26.32	ditto.			

From 1st February.

6th July.

13th July.

15th July.

16th July.

17th July.

18th July.

19th July.

20th July.

21st July.

22nd July.

23rd July.

24th July.

25th July.

26th July.

27th July.

28th July.

29th July.

30th July.

31st July.

1st Aug.

2nd Aug.

3rd Aug.

4th Aug.

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19th Nov.

20th Nov.

21st Nov.

22nd Nov.

23rd Nov.

24th Nov.

25th Nov.

26th Nov.

27th Nov.

28th Nov.

29th Nov.

30th Nov.

1st Dec.

2nd Dec.

3rd Dec.

4th Dec.

5th Dec.

6th Dec.

7th Dec.

8th Dec.

DISTRICT.	SUB-DISTRICT.	STATION.	Rain from 25th June to 5th July 1873.	Rain from 5th to 15th July 1873.	RAIN FROM 1st JANUARY 1874.		REMARKS.	
					Inches.	Up to date.		
BEHAR.								
PATNA.	Patna	Patna	0.07	2.48	7.28	12th July.		
		Bahar	Nil.	1.40	4.07	ditto.		
		Barh	0.08	2.29	7.23	ditto.		
	Gya	Janapora... { Jail	1.30	2.00	5.84	ditto.		
		... { Cantonment	2.15	1.20	5.75	ditto.		
		Gya	0.55	0.97	4.25	ditto.		
	Shahabad	Nowaoh	0.40	2.63	5.70	ditto.		
		Aurangabad	0.10	5.18	7.29	ditto.		
		Johannabad	0.15	6.00	12.22	ditto.		
	Thakool	Arrah	0.43	7.45	12.34	ditto.		
Saweran		0.08	7.09	10.18	ditto.			
Buxar		Nil.	2.50	6.04	ditto.			
BANGALORE.	Bangalore	Mithunah	1.30	4.72	12.16	ditto.		
		Mozumbar	Nil.	1.21	10.20	ditto.		
		Durbinah	0.07	4.91	10.43	ditto.		
	Thakool	Hajipore	Nil.	1.72	8.26	ditto.		
		Mudihani	2.00	2.05	12.45	ditto.		
		Seotamur	1.20	5.30	17.28	ditto.		
	Baran	Tajpore	1.90	3.70	13.24	ditto.		
		Chuprah	0.03	4.49	10.01	ditto.		
		Sewon	0.38	1.50	5.04	ditto.		
	Chomparun	Mulchah	1.05	4.60	10.02	ditto.		
Botich		4.75	8.21	19.22	ditto.			
Monghyr		0.27	0.02	7.10	ditto.			
MONGHYR.	Monghyr	Deocera	0.25	1.24	5.67	ditto.		
		Jamou	5.48	1.40	9.35	ditto.		
		Bhangulpore	0.03	0.02	5.43	ditto.		
	Bhangulpore	Soupol	0.09	0.67	6.62	ditto.		
		Mudihypurah	3.13	1.60	17.54	ditto.		
		Barka	0.20	3.22	12.08	ditto.		
	Furneah	Sankar	1.01	0.17	6.02	ditto.		
		Purneah	2.32	2.73	10.00	ditto.		
		Rishengunga	3.53	3.11	10.81	ditto.		
	SOUTH-PERANNAH.	Sonthal Perannah	Arrah	0.05	0.33	12.25	ditto.	
Deochur			3.27	5.08	14.78	ditto.		
Jamou			Not rec.	4.40	5.34	ditto.	Not recorded 1st June to 25th July	
Sonthal Perannah		Rajmohal	2.25	1.45	7.40	ditto.		
		Pakour	0.91	1.40	4.74	ditto.		
ORISSA.								
CUTTACK.	Cuttack	Cuttack { Telegraph Office	1.80	2.30	10.50	ditto.		
		... { Hospital	2.05	2.01	12.07	ditto.		
		Jailpore	2.40	0.70	15.55	ditto.		
	Poursa	Kendrapara	2.90	2.70	18.30	ditto.		
		Jamshaidpore	0.68	0.11	10.07	ditto.		
		Paseo Point	2.50	1.00	12.25	ditto.		
	Balasore	Poursa	0.08	0.01	0.07	ditto.		
		Kandah	2.32	1.10	11.31	ditto.		
		Balasore	2.50	0.49	14.63	ditto.		
	Balasore	Warduruck	1.42	Nil	9.21	ditto.		
Balasore		0.43	0.45	11.62	ditto.	From 1st April.		
Boras		2.16	0.60	7.28	ditto.	ditto.		
CHOTA NAGPORE.	Chota Nagpore	Chandibally	1.70	0.73	6.13	ditto.	ditto.	
		Tributary	Bambalpara	Not rec.	Not rec.	4.72	1st June.	
		Chota Nagpore	Not rec.	Not rec.	4.72	1st June.		
	South-Western Frontier Agency.	Hazaribagh	Not rec.	Not rec.	4.72	1st June.		
		Hazaribagh { Jail	2.27	2.97	8.57	12th July.		
		... { Dispensary	1.73	2.64	8.99	ditto.		
	Singbhoon	Pachumb	2.15	3.15	11.10	ditto.		
		Rancher	0.01	2.21	8.07	ditto.		
		Jamou	0.23	7.34	12.74	ditto.		
	Mauabhoon	Gyebhoo	1.05	1.15	12.43	ditto.		
		Purnea	0.47	3.45	10.81	ditto.		
		Golmupore	Not rec.	4.72	9.00	ditto.	Not rec. 22nd June to 5th July.	
	ASSAM & ADJACENT HILLS.							
	LUSHIMPORE.	Lushimpore	Goalparah	0.61	2.17	44.02	ditto.	
Dhobres			2.40	8.10	67.23	ditto.		
Gowahaty			2.06	2.94	35.12	ditto.		
Kamroop		Harpetah	0.14	0.70	34.12	ditto.	Not rec. 15th to 21st June.	
		Tamper	3.08	Not rec.	35.97	ditto.		
		Mankledya	4.18	0.11	38.23	12th July.		
Nowgong		Nowgong	2.11	Not rec.	41.24	ditto.		
		Nowgong	2.11	Not rec.	41.24	ditto.		
		Nowgong	2.11	Not rec.	41.24	ditto.		
Dibrugarh		Dibrugarh	2.11	Not rec.	41.24	ditto.		
	Dibrugarh	2.11	Not rec.	41.24	ditto.			
	Dibrugarh	2.11	Not rec.	41.24	ditto.			
LUSHIMPORE.	Lushimpore	Dibrugarh	2.11	Not rec.	41.24	ditto.		
		North Lushimpore	2.11	Not rec.	41.24	ditto.	Not rec. 27th April to 10th May.	
		Rudra	2.11	Not rec.	41.24	ditto.		
	Naga Hills	Nainigodding	2.11	Not rec.	41.24	ditto.		
		Shikang	2.11	Not rec.	41.24	ditto.		
		Jowai	2.11	Not rec.	41.24	ditto.		
	Khasi and Jynteah Hills	Cherrapunjee	1.30	1.30	146.23	ditto.		
		Tura	2.11	Not rec.	41.24	ditto.		
		Benares	0.73	Not rec.	1.07	12th July.		
		Akyab	0.80	Not rec.	76.00	12th July.		

CALCUTTA,
The 19th July 1873.

H. F. BLANFORD,
Meteorological Reporter to the Govt. of Bengal.

Meteorological Telegraphic Report for the period 13th to 19th July 1873.

STATIONS.	Date.	Hour.	Barometer reduced to 32°.	Barometer reduced to sea level.	THERMOMETER.		Humidity Sat. at 100.	Wind.		Rain.	Clouds.	Weather initials.
					Dry.	Wet.		Direction.	Velocity.			
Calcutta.	July											
	13th	10	29.426	29.447	85.5	82.8	88	N E	...	...	...	...
	14th	10	29.417	29.385	84.5	81.4	80	W	...	0.10	CK, C	...
	14th	10	29.456	29.473	81.2	79.3	81	W S W	...	0.10	...	...
	14th	10	29.401	29.418	83.0	80.8	80	S W	...	0.09	...	...
	15th	10	29.528	29.548	84.5	81.5	87	S W	...	...	K	...
	15th	10	29.439	29.451	83.0	81.8	86	S	...	0.12	...	...
	16th	10	29.605	29.523	84.2	81.7	69	S W	...	0.04	K, N	...
	16th	10	29.401	29.421	84.5	82.8	77	S S W	...	0.07	K	...
	17th	10	29.497	29.485	87.5	83.5	84	N E	...	...	S, K	...
Sancor Island.	13th	10	29.363	29.381	80.0	82.4	87	N E	...	0.16	S	...
	13th	10	29.311	29.329	81.0	80.0	86	N E	...	1.20	...	n, d
	13th	10	29.184	29.212	81.0	80.5	87	S S W	...	0.85	...	...
	13th	10	29.412	29.430	80.4	82.0	81	S S W	...	0.59	C, K	...
	13th	10	29.559	29.577	87.5	82.4	70	S	...	...	K	...
	13th	10	29.443	29.448	83	81	81	W N W	10.3	0.20	N	d, p, n, w.
	14th	10	29.280	29.375	84	81	87	W S W	11.0	0.30	N	d, p, e
	14th	10	29.458	29.489	82	78	82	W S W	22.2	0.30	N	p, n, d
	14th	10	29.427	29.433	83	81	79	S W	25.8	...	N	b, n, clouds.
	15th	10	29.564	29.609	88	80	87	W S W	18.0	0.30	N	n, p, n, clouds.
Ceylon.	13th	10	29.484	29.470	84	82	83	S W	10.5	...	N	l, clouds
	13th	10	29.533	29.559	86	82	83	W	11.4	...	N	n, u
	13th	10	29.488	29.472	84	81	87	S W	7.3	...	N	d, e
	13th	10	29.471	29.477	87	83	79	N W	14.3	...	N	...
	13th	10	29.373	29.477	82	80	81	W N W	10.2	1.10	N	...
	14th	10	29.341	29.347	83	81	81	W N W	20.6	3.00	N	d, p, n, clouds.
	14th	10	29.278	29.283	81	79	81	W	10.0	0.10	N	d, p, n, clouds.
	14th	10	29.438	29.444	82	83	74	S S W	17.0	...	N	b, m, n
	14th	10	29.378	29.370	86	83	80	S S W	17.0	...	N	b, m, n
	14th	10	29.433	29.514	84	80	83	S E	8.1	...	K, KS	...
Madras.	13th	10	29.334	29.436	83	79	83	S E	13.3	0.10	N	n, d, p, g
	14th	10	29.600	29.505	80	78	85	S S E	9.8	1.00	N	d, n, g
	14th	10	29.440	29.512	81	78	80	S S E	10.0	0.20	K, KS	...
	14th	10	29.374	29.497	78	77	85	W	3.0	0.30	KS	p, v
	14th	10	29.482	29.674	80	80	83	W S W	9.4	...	C, K	b, v
	14th	10	29.484	29.670	85	80	79	S E	4.0	...	CK, K, KS	...
	14th	10	29.594	29.487	82	80	81	S S E	0.8	...	K, KS	...
	14th	10	29.414	29.500	84	80	83	E	4.0	0.20	N	d, g
	14th	10	29.328	29.478	80	77	72	E S E	7.3	...	K, KS	...
	14th	10	29.462	29.645	78	77	85	E S E	7.0	...	N	d, g
Bombay.	13th	10	29.385	29.478	78	77	85	E S E	10.0	0.50	N	d, g
	13th	10	29.477	29.568	84	80	83	E S E	5.0	0.10	K, KS	i, v
	13th	10	29.390	29.481	87	81	70	S S W	11.5	...	K, C, CK	d, v
	13th	10	29.703	29.703	91	79	30	S W by W	14	...	...	c
	13th	10	29.633	29.633	87	74	30	S W	13	...	...	...
	13th	10	29.745	29.775	89	74	46	W	18	0.27	...	cloudy.
	14th	10	29.650	29.688	83	74	37	W by N	12	...	...	c
	14th	10	29.765	29.765	82	74	39	W	18	...	...	c
	14th	10	29.620	29.654	83	76	43	S W	9	...	...	c
	14th	10	29.765	29.785	90	77	53	W	13	0.14	...	c
Kishore.	13th	10	29.634	29.614	82	78	51	S by E	13	...	...	c
	13th	10	29.760	29.780	89	74	40	W	12	0.23	...	cloudy.
	13th	10	29.634	2.641	91	78	53	S W	8	...	...	c
	13th	10	29.761	29.781	90	74	41	W by N	17	0.01	...	cloudy.
	13th	10	29.613	29.643	102	78	31	W by S	10	...	...	c
	13th	10	29.711	29.741	91	76	47	W	14	...	...	c
	13th	10	29.662	29.683	90	76	30	W by N	13	...	...	c
	13th	10	...	...	81	78	80	W S W	4.1	...	KS, N	d
	14th	10	29.536	29.518	82	78	74	W S W	7.2	...	KS, N, C	...
	14th	10	29.598	29.571	80	74	81	S S W	4.3	0.40	KS, N, C	...
Kishore.	13th	10	29.600	29.590	80	77	85	S W	3.3	0.30	N	...
	14th	10	29.377	29.410	80	79	72	W S W	4.3	...	CK, K, N, C	...
	14th	10	29.367	29.519	83	81	72	W S W	2.1	0.30	C, CK, KS	...
	14th	10	29.380	29.403	83	79	76	W S W	4.0	...	K, KS, N, C	...
	14th	10	29.405	29.547	83	78	78	W	6.3	0.10	KS, N, C	...
	14th	10	29.390	29.442	86	79	76	W S W	6.4	...	KS, N, C	...
	14th	10	29.408	29.501	88	78	82	W	6.3	...	KS, N, C	...
	14th	10	29.390	29.392	84	79	79	W	6.9	...	S, C	...
	14th	10	29.357	29.430	86	79	72	W S W	5.0	...	C, KS, N	...
	14th	10	29.276	29.357	87	79	68	W S W	0.0	...	CK, N, C	...
Kishore.	13th	10	29.653	29.605	80	70	85	S	6.2	0.00	...	r
	13th	10	29.614	29.335	83	80	87	S E	9.3	...	...	g
	14th	10	29.620	29.642	81	80	85	S W	4.2	0.30	...	g
	14th	10	29.568	29.590	81	80	85	W S W	2.5	0.30	...	g
	14th	10	29.636	29.678	78	78	100	E N E	0.7	2.20	...	g
	14th	10	29.668	29.680	82	79	87	S S E	0.1	0.30	...	g
	14th	10	29.683	29.615	70	78	85	S S E	1.3	0.30	...	g
	14th	10	29.600	29.591	78	77	85	S	0.8	0.00	...	g
	14th	10	29.640	29.571	78	78	100	S	0.6	0.00	...	g
	14th	10	29.481	29.513	81	79	81	K S W	8.5	0.50	...	g
Kishore.	14th	10	29.520	29.601	86	89	83	S	4.7	1.80	...	g
	14th	10	29.481	29.502	84	81	87	S	8.0	...	...	g
	14th	10	29.578	29.503	79	78	86	S W	0.7	...	...	g
Kishore.	14th	10	29.476	29.497	80	81	91	S	0.1	...	...	g

Velocity of wind in miles per hour.

Calcutta,
23rd July 1873.H. F. BLANFORD,
Meteorological Reporter to the Government of Bengal.

**Results of the Meteorological Observations taken at the Surveyor-General's Office,
Calcutta, from 15th to 21st July 1873.**

Month.	Date.	Mean reduced barometer, Inches.	THERMOMETER.			Mean dry bulb.	Mean wet bulb.	Computed mean dew-point.	Mean degree of humidity.	WIND.			Rain.	Moon's phase.	GENERAL REMARKS.
			Highest reading.	Lowest reading.	Max. solar radiation.					Prevailing direction.	Max. pressure.	Daily velocity.			
July	15th	30.407	89.0	79.6	141.0	82.6	80.8	70.0	0.91	S W	...	148.0	0.36	...	Clouds of different kinds. Thunder at 3½ & 8 p.m. Lightning at 8 p.m. Slight rain between 10 & 11 a.m., from 3 to 4, at 6, 7½, & 8½ p.m.
	16th	473	88.5	81.0	128.0	81.0	81.8	80.3	89	N W & S S W	...	31.4	0.07	...	Clouds of different kinds. Thunder at 7 & 8 p.m. Lightning from 7 to 11 p.m. Slight rain at 10½ a.m., 11 & between 6 & 7 p.m.
	17th	420	91.0	81.0	142.0	84.0	82.1	80.4	88	Variable.	1.0	97.0	0.48	☾	Stratocumuli & overcast. Thunder at 11 & 8 p.m. Slight rain at 3, 11½, 12½ a.m., from 3½ to 6 & at 8½ p.m.
	18th	200	82.2	79.5	...	80.5	79.0	79.0	86	N N W & Variable	...	184.0	1.80	...	Chiefly overcast. Thunder at 2 p.m., rain nearly the whole day.
	19th	379	89.3	79.5	140.0	80.0	80.8	78.8	86	S S W	1.0	230.0	0.31	...	Overcast, and cumuli. Lightning on W at 8 p.m., rain between midnight and 1 a.m.
	20th	461	90.2	82.0	140.0	86.5	82.2	79.9	81	S S W	...	103.3	0.07	...	Stratocumuli and clear. Thunder between 2 & 3 p.m. Slight rain at 3½ p.m.
	21st	612	91.0	81.8	138.0	84.2	82.1	80.6	86	S S W & S by W	...	92.2	0.60	...	Clouds of different kinds. Thunder from 1 to 4 p.m. Rain at 1 & between 4 & 5 p.m.

The mean barometer, as likewise the dry and wet bulb thermometer means, are derived from the twenty-four hourly observations made during the day.

The dew-point is computed with the Greenwich constants. The figures in column 10 represent the humidity of the air, the complete saturation of which being taken at unity. The receiver of the lower rain gauge is 1½ feet, and that of the anemometer 70 feet 10 inches above the level of the ground. The velocity of wind, as indicated by Robinson's anemometer, is registered from noon to noon.

The extreme variation of temperature during the past seven days	...	11.5
The max. temperature during the past seven days	...	91.0
The max. temperature during the corresponding period of the past year	...	90.5
The mean humidity during the past seven days	...	0.89
The mean humidity during the corresponding period of the past year	...	0.88
		Inches.
The total fall of rain from 15th to 21st	(by lower rain gauge	3.55
	(by anemometer gauge	3.16
Ditto ditto ditto,	average of nineteen previous years	2.52
Ditto ditto between the 1st January and the 21st July	...	19.09
Ditto ditto ditto,	average of nineteen previous years	22.02

GOPINATH SEN,
In charge of the Observatory.

The 22nd July 1873.

Abstract of the Results of the Hourly Meteorological Observations taken at the Surveyor-General's Office, Calcutta, in the month of June 1873.

LATITUDE 22° 33' 1" North. Longitude 88° 20' 34" East. Height of the station of the standard barometer above the sea level, 18' 11 feet.

MONTHLY RESULTS.

	Inches.
Mean height of the barometer for the month ...	29.508
Max. height of the barometer occurred at 9 p.m. on the 6th ...	29.683
Min. height of the barometer occurred at 4 p.m. on the 1st ...	29.325
Extreme range of the barometer during the month ...	0.357
Mean of the daily max. pressures ...	29.561
Ditto ditto min. ditto ...	29.443
Mean daily range of the barometer during the month ...	0.118
Mean dry bulb thermometer for the month ...	87.9
Max. temperature occurred at 3 p.m. on the 2nd ...	103.0
Min. temperature occurred at 6 and 7 p.m. on the 13th ...	78.0
Extreme range of the temperature during the month ...	25.0
Mean of the daily max. temperature ...	96.1
Ditto ditto min. ditto ...	82.1
Mean daily range of the temperature during the month ...	14.0
Mean wet bulb thermometer for the month ...	82.2
Mean dry bulb thermometer above mean wet bulb thermometer ...	5.7
Computed mean dew-point for the month ...	78.8
Mean dry bulb thermometer above computed mean dew-point ...	9.1
Mean elastic force of vapour for the month ...	Inches. 0.964
Mean weight of vapour for the month ...	Troy grain. 10.25
Additional weight of vapour required for complete saturation ...	3.39
Mean degrees of humidity for the month, complete saturation being unity ...	0.75
Mean max. solar radiation thermometer for the month ...	141.4
Rained 16 days,—max. fall of rain during 24 hours ...	Inches. 1.61
Total amount of rain during the month ...	4.30
Total amount of rain indicated by the gauge* attached to the anemometer during the month ...	3.44
Prevailing direction of the wind ...	S S W & S.

*Height, 70 feet 10 inches above ground.

GOPKINATH SEN,
In charge of the Observatory.

The 21st July 1873.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

ORISSA CIRCLE.
Statement showing the amount of Traffic and Tolls on the Kendraparah Canal during the month of May 1873.
BRAMINEE DIVISION.

LOCAL TRAFFIC.										TRAFFIC BETWEEN CUTTACK AND SEA BOARD.										STORES AND MATERIALS FOR IRRIGATION WORKS.										ABSTRACT.				
Number of boats.	Nature of cargo.	Tonnage, exclusive of empty boats.		Approximate value of cargo.	Tonnage.	Tollage.	Number of boats.	Nature of cargo.	Approximate value of cargo.	Tonnage, exclusive of empty boats.	Tollage.	Number of boats.	Nature of cargo.	Tonnage, exclusive of empty boats.		Approximate value of cargo.	Tonnage, exclusive of empty boats.	Tollage.	Number of boats.	Nature of cargo.	Value of traffic.	Tonnage, exclusive of empty boats.	Tollage.											
		Maunder.	Tons.											Maunder.	Tons.																			
85 Paddy	Paddy	8,217	8,424	9,600	10,914	231	0 0	1 Brushwood	91	727	3 8 0	147 Local traffic paid	Local traffic paid	Rs.	Rs.	14,741	282	10,107	9,123	11 4	Rs.	Rs.	10,107	9,123	11 4									
3 Rice	Rice	689	639	196	195	2 10 0	0 0	1 Gyler	170	170	0 12 0	959 Through ditto	Through ditto	0 12 0	38	174	481,048	1,473	61,896	658	3 11	Rs.	Rs.	61,896	658	3 11								
6 Jagary	Jagary	7,275	1,656	11,948	747	10 14 0	0 0	1 Centric lime	38	174	0 12 0			0 12 0	15	117																		
1 Salt	Salt	1,805	331	3,300	330	31 8 0	0 0	1 Bamboo	9	117	0 10 8			0 10 8																				
4 Grain	Grain	8,042	801	24,996	2,426	35 13 0	0 0	1 Mustard seed	7	117	0 10 8			0 10 8																				
1 Corn seed	Corn seed	818	164	2,426	747	17 1 0	0 0	3 Rice	1,902	734	20 2 0			20 2 0																				
2 Fat fish	Fat fish	146	146	7,245	734	10 2 0	0 0	1 Currie lime	65	310	4 15 0			4 15 0																				
1 Bamboo	Bamboo	146	146	7,245	310	3 0 0	0 0	2 Clats	8,480	424	30 12 0			30 12 0																				
3 Gravel	Gravel	10	652	126	424	1 7 4	0 0	2 Powders	2,082	684	9 12 0			9 12 0																				
2 Passengers	Passengers	21	6,522	21	2,082	8 8 0	0 0	3 Straw	2,082	684	11 10 0			11 10 0																				
72 Empty	Empty	21	6,522	21	684	3 14 0	0 0	3 Oil cake	710	812	0 12 0			0 12 0																				
2 Timber	Timber	21	6,522	21	87		0 0	1 Wheat	121	121	1 12 0			1 12 0																				
					189		0 0	1 Salt fish	224	189	18 6 0			18 6 0																				
					112		0 0	1 Chilies	1,244	112	28 0 11			28 0 11																				
					1,554		0 0	14 Passenger	1,554	1,554	93 0 11			93 0 11																				
					4,143		0 0	21 Empty	4,143	4,143	7 5 0			7 5 0																				
					68		0 0	6 Bamboo	68	684	14 10 0			14 10 0																				
					325		0 0	2 Timber	325	856	0 9 0			0 9 0																				
					44		0 0	2 Bamboo	44	44	7 14 0			7 14 0																				
					3,650		0 0	21 Empty	3,650	3,650																								
					21		0 0	21 Empty	21	21																								
					49		0 0	21 Empty	49	49																								
					49		0 0	21 Empty	49	49																								
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PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

ORISSA CIRCLE.

Statement showing the amount of Traffic and Tolls on the Brahmanee Division High Level Canal for the month of May 1873.

LENGTH OF CANAL OPEN—37 MILES.

LOCAL TRAFFIC.										STORES AND MATERIALS FOR IRRIGATION WORKS.					ABSTRACT.				
No.	Description of cargo.	Approximate weight of cargo.	Approximate value of cargo.	Tonnage, exclusive of empty boats.		Tonnage, exclusive of empty boats.	Tollage.	Number of boats or carts.	Nature of cargo.	Approximate weight of cargo.		Tonnage, exclusive of empty boats.		Tollage.	Weight of cargo.	Value of cargo.	Tonnage, exclusive of empty boats.	Tollage.	No.
				Manilla.	Tons.					Manilla.	Tons.								
16	Bamboo	1,284	625	2,877	103	1,271	12 14 0	2	Lock gate	550	780	1,152	42 1/2	17 4 0	4,318	11,503	219	5,427	60
1	Bamboo mats	100	500	128	5	128	1 14 0	5	Firewood	1,500	150	8,403	121 1/2	23 4 0	2,006	2,550	301	9,894	119
1	Cocunut	10	30	24	1	24	0 4 0	1	Stones	400	6	450	16 1/2	2 4 0	...	...	...	...	...
1	Oil cake, &c.	170	140	324	4	144	3 0 0	2	Lock machinery	...	...	1,608	38	14 10 0	...	...	...	...	...
1	Tool	35	60	48	1	18	0 3 0	2	Strainer	...	...	2,000	71 1/2	30 2 4	...	...	...	...	...
1	Provision	7	14	24	1	24	0 4 0	15	Empty	...	...	...	...	25 0 0	...	...	...	...	...
1	Oil, &c.	10	130	80	1	36	0 7 0	1	Passengers	100	220	300	13 1/2	1 8 0	...	...	...	...	...
13	Jaggery	2,008	10,010	2,580	98	1,230	13 11 8	1	Iron rails	...	...	...	...	5 10 0	...	...	...	...	...
46	Empty	...	...	...	...	1,616	23 5 7	...	...	...	...	...	...	...	...	...	...	...	...
5	Passengers	...	...	...	...	...	8 13 10	...	...	...	...	...	...	...	...	...	...	...	...
30		4,819	11,508	5,980	212	5,427	70 13 8	29		2,550	1,180	8,453	801	119 8 9	5,688	13,673	513	14,321	150

The collection of the same month in last year is Rs. 98-14-7.

The corresponding return for the same month in the last year shows an increase of 15 per cent. on the private trade and more than 100 per cent. on the gross total.

DEPARTMENT OF PUBLIC WORKS, IRRIGATION BRANCH, BENGAL.

ORISSA CIRCLE.

Statement showing the amount of Traffic and Tolls on the Taldandah Canal for May 1873.

LENGTH ■ CANAL OPEN—27½ MILES.

LOCAL TRAFFIC.										STORES AND MATERIALS FOR IRRIGATION WORKS.										ABSTRACT.				
No. of boats.	Nature of cargo.	APPROXIMATE		TONNAGE.		Ton mileage.	Tollage.	Number of boats or bales.	Nature of cargo.	APPROXIMATE		TONNAGE.		Ton mileage.	Tollage.	Number of boats.	Nature of traffic.	Weight of cargo.	Value of traffic.	Ton mileage.	Tollage.	Remarks.		
		Weight of cargo.	Value of cargo.	Mds.	Ra.					Weight of cargo.	Value of cargo.	Mds.	Ra.											
5	Peaty	...	1,196	118	3,304	1,160	9 5 6	...	...	...	...	693	16,618	8,962	41 8 10	...	...	...	...	...	...	...
2	Jaggery	...	1,100	93	980	975	4 14 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Straw	...	333	146	4,080	730	10 3 6	24	Laharite	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Charcoal	...	10	10	278	160	0 11 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Home furniture	...	100	362	362	203	1 6 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Lime	...	10	135	135	25	0 6 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Timber	...	15	844	13	53	0 14 7	1	Lime	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Fuel	...	20	567	904	61	1 6 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Timbers	...	63	...	...	...	5 3 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
900	Bamboos	...	13	...	...	...	1 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
90	Passengers	...	...	...	...	...	0 9 9	22	Empty	...	...	...	...	...	...	...	...	...	...	...	...	...
48	Empty boats for 24 days	...	...	...	...	2,084	15 6 7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
78		...	2,857	366	9,980	6,370	57 5 4	47		...	...	...	...	...	...	...	...	...	2,961	17,301	114 4 11	77-11-6

N. B.—There has been a considerable increase in traffic both local and for irrigation works as compared with the same month of last year.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.—COSSYE DIVISION.

Statement showing the amount of Traffic and Tolls in the Midnapore Section of the High Level for the Month of May 1873.

LENGTH OF CANAL OPEN—24 MILES.

LOCAL TRAFFIC.										STORES AND MATERIALS FOR IRRIGATION WORKS.										ABSTRACT.						
Number of boats.	Name of cargo.	APPROXIMATE		TOTAL, EXCLUDING TONNAGE OF EMPTY BOATS.		Tollage.	Number of boats.	Tollage.	Ton mileage.	Rs. A. P.	Nature of cargo.	APPROXIMATE		TOTAL, EXCLUDING TONNAGE OF EMPTY BOATS.		Tollage.	Number of boats.	Nature of traffic.	Weight of cargo.	Value of traffic.	Total, including of tonnage of empty boats.	Ton mileage.	Rs. A. P.	Remarks.		
		Weight of cargo.	Value of cargo.	Maunds.	Tons.							Weight of cargo.	Value of cargo.	Maunds.	Tons.											
86	Coal	31,276	9,752	60,476	...	Rs. A. P.	...	278 0 0	1	...	Iron	300	800	675 (260)	...	...	...	...	...	...	...	...	...	...	The collections for the year ended 31st March 1908-10-3.	
25	Cotton	2,830	71,960	9,426	...	...	...	56 7 6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Firewood	60	168	1,476	...	...	...	7 0 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	Grain	3,765	9,217	6,900	...	...	...	19 10 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Hides and horns.	1,172	22,353	2,750	...	...	...	35 15 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
44	Jaggery and sugar	3,450	60,745	9,275	...	...	...	84 15 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Metal	3,100	43,490	9,476	...	...	...	119 3 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
108	Miscellaneous	7,612	73,570	23,550	...	...	...	175 12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
78	Oil and oilseed	14,060	60,770	20,750	...	...	...	22 2 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
97	Paddy and rice	3,048	3,461	5,810	...	...	...	27 14 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Peanut	704	69,093	6,776	...	...	...	73 3 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63	Threads	3,600	1,33,657	16,300	...	...	...	111 10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
151	Garden produce	9,250	8,800	97,875	...	...	...	17 13 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Poultry	287	346	4,250	...	...	...	431 12 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
97	Salt	33,106	1,23,836	64,050	...	...	...	20 14 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Silk and indigo	421	64,080	3,435	...	...	...	29 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Straw	7,801	880	5,200	...	...	...	77 5 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	Tobacco	6,130	40,920	16,275	...	...	...	5 3 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Tiles	300	400	835	...	...	...	49 11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	Wood	6,250	501	13,550	...	...	...	0 9 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Waste of timber	50	50	108	...	...	...	1 4 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Waste of lumber	44	44	500	...	...	...	194 13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
277	Empty boats	...	...	(26,775)	...	...	...	90 10 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
217	Passengers	...	...	No. 7,243	...	...	...	358 4 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Ditto	...	...	(33,900)	...	...	...	5 8 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Empty boats	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Total	1,21,446	8,21,008	1,13,700	113 10 00	...	...	221 5 100	10 0	...	...	900	800	675	20	...	...	...	1,29,019	8,23,808	11,300	90,476	2,180	9 0	...	

Tonnage shown above is of the boats and not of the cargo.

The 11th June 1873.

A. J. HUGHES, C.E.,
For Offs. Joint-Secretary to the Government of Bengal
in the P. W. Dept., Irrigation Branch.

Weekly Return of Traffic Receipts on Indian Railways.

EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for last two days of June 1873, on 156½ miles open.

	COACHING TRAFFIC.			MERCHANDISE AND MINERAL TRAFFIC.			Total traffic receipts.
	Number of passengers.	Coaching receipts.		Weight carried.	Receipts.		
		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week	7,694	4,076 13 0	406 5 2	13,921 20	6,208 14 7	482 0 0	938 9 2
Or per mile of railway	49	31 12 10	2 16 4	89 0	33 9 10	3 1 7	6 19 13
For previous 50 weeks of half-year	801,940	6,42,301 4 2	65,977 14 1	3,212,005 26	10,70,054 7 0	71,362 4 8	136,270 11 0
Total for half-year	8,10,634	6,47,378 8 11	66,384 0 8	3,220,427 22	10,84,513 6 1	71,674 9 8	137,258 10 11
COMPARISON.							
Total for last day of June 1872	13,204	3,520 14 0	325 11 0	51,448 11	22,088 15 8	2,024 16 0	2,348 7 0
Per mile of railway, corresponding week of previous year	85	25 8 10	3 1 4	320 0	141 2 4	12 14 0	16 0 1
Total to corresponding date of previous year	8,67,921	4,38,808 11 0	40,365 5 10	5,759,627 25	7,15,415 9 11	43,570 15 6	114,945 1 4

EAST INDIAN RAILWAY—JUBBULPORE LINE.

Approximate Return of Traffic for first five days of July 1873, on 223½ miles open.

		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the 5 days ...	3,701	7,364 16 7	676 19 2	47,471 20	11,374 1 0	1,042 12 6	1,719 11 6
Or per mile of railway ...	...	33 9 8	3 11 7	...	50 14 8	4 18 4	7 13 11
For previous weeks of half-year ...	...	...	...	...	...	...	...
Total for 5 days ...	3,701	7,364 16 7	676 19 2	47,471 20	11,374 1 0	1,042 12 6	1,719 11 6
COMPARISON.							
Total for corresponding 5 days of previous year ...	3,600	8,127 9 0	745 9 0	34,680 20	8,414 0 0	774 0 0	1,519 1 3
Per mile of railway, corresponding 5 days of previous year ...	...	24 5 10	3 8 8	...	37 12 0	3 9 3	6 15 11
Total to corresponding date of previous year ...	11,400	8,227 0 0	745 0 0	34,684 20	8,444 0 0	774 0 0	1,519 1 3

EAST INDIAN RAILWAY—MAIN LINE.

Approximate Return of Traffic for first five days of July 1873, on 1,260 miles open.

		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the 5 days ...	85,700	91,825 4 0	8,426 6 0	461,230 20	2,11,045 1 11	19,402 12 7	27,523 1 4
Or per mile of railway ...	...	21 12 3	6 11 7	...	165 6 10	15 3 3	21 14 9
For previous weeks of half-year ...	...	...	...	...	...	...	...
Total for 5 days ...	85,700	91,825 4 0	8,426 6 0	461,230 20	2,11,045 1 11	19,402 12 7	27,523 1 4
COMPARISON.							
Total for corresponding 5 days of previous year ...	84,070	1,01,385 0 4	9,203 13 3	452,605 20	2,40,232 11 6	22,444 5 4	32,141 16 7
Per mile of railway, corresponding 5 days of previous year ...	...	79 3 4	7 5 3	...	184 11 11	17 17 0	25 2 3
Total to corresponding date of previous year ...	85,070	1,01,385 0 4	9,203 13 3	452,605 20	2,40,232 11 6	22,444 5 4	32,141 16 7

EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for first five days of July 1873, on 165½ miles open.

		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week ...	23,661	14,329 3 4	1,313 10 2	71,770 20	17,346 6 1	1,689 19 2	2,903 11 4
Or per mile of railway ...	157	91 4 0	8 7 10	429 0	110 13 11	10 8 2	16 11 10
Total for 1 week ...	23,661	14,329 3 4	1,313 10 2	71,770 20	17,346 6 1	1,689 19 2	2,903 11 4
COMPARISON.							
Total for first 5 days of July 1873 ...	24,534	13,618 8 11	1,375 7 10	1,07,012 30	23,208 10 1	2,316 5 19	3,591 13 4
Per mile of railway, corresponding week of previous year ...	187	68 14 6	8 3 8	687	141 7 5	14 10 0	23 18 0

EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for week ended 12th July 1878, on 156½ miles open.

	COACHING TRAFFIC.			MERCHANDISE AND MINERAL TRAFFIC.			Total traffic receipts.
	Number of passengers.	Coaching receipts.		Weight carried.	Receipts.		
		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week	20,732	10,184 9 8	1,740 5 5	85,388 8½	17,862 7 9	1,840 11 2	8,386 19 8
Or per mile of railway	132	121 15 1	11 3 7	546 0	119 2 10	10 4 8	51 5 7
For previous first 5 days of July ...	20,544	10,829 3 0	1,313 10 2	73,770 29	17,846 0 1	1,569 19 3	8,905 9 4
Total for 2 weeks	41,276	21,013 13 8	3,053 15 7	1,57,158 38½	35,707 7 10	3,410 10 5	16,291 9 0
COMPARISON.							
Total for corresponding week of previous year	28,180½	16,580 0 10	1,516 2 4	1,04,482 38	41,079 10 4	3,705 3 4	1,881 3 10
Per mile of railway corresponding week of previous year	182	106 10 11	9 13 9	1,031 0	262 7 4	24 1 2	53 14 11
Total to corresponding date of previous year	88,681	30,452 12 0	2,591 10 2	2,78,002 84	60,845 4 7	6,081 9 4	3,072 10 8

NULHATTEE STATE RAILWAY.

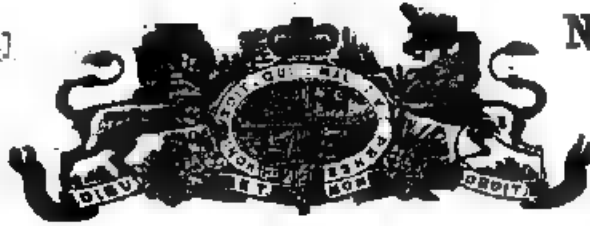
Approximate Return of Traffic for week ended 12th July 1878, on 27½ miles open.

		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week	1,415	1,005 0 0	140 18 0	8,411 0	285 0 0	28 8 0	129 8 0
Or per mile of railway	52	37 0 0	5 14 0	305 0	10 0 0	1 9 0	4 14 0
For previous 1 week of half-year ...	800½	621 0 0	62 2 0	2,312 8	222 0 0	22 4 0	94 0 0
Total for 2 weeks	2,215½	1,626 0 0	192 0 0	5,723 8	507 0 0	50 12 0	223 8 0
COMPARISON.							
Total for corresponding week of previous year	1,415	1,005 0 0	140 18 0	8,411 0	285 0 0	28 8 0	129 8 0
Per mile of railway, corresponding week of previous year	52	37 0 0	5 14 0	305 0	10 0 0	1 9 0	4 14 0
Total to corresponding date of previous year	800½	621 0 0	62 2 0	2,312 8	222 0 0	22 4 0	94 0 0

CALCUTTA AND SOUTH-EASTERN STATE RAILWAY.

Approximate Return of Traffic for week ended 12th July 1878, on 28 miles open.

		Rs. A. P.	£ s. d.	Mds. Strs.	Rs. A. P.	£ s. d.	£ s. d.
Total traffic for the week	4,476	763 0 0	76 0 0	17,029 0	823 0 0	32 0 0	128 12 0
Or per mile of railway	160	27 8 0	2 15 0	608 0	18 8 0	1 17 0	4 12 0
For previous 1 week of half-year ...	2,747	628 0 0	62 16 8	15,169 0	276 0 0	27 10 8	90 8 0
Total for 2 weeks	7,223	1,391 0 0	138 2 8	32,198 0	1,099 0 0	70 16 8	218 12 0
COMPARISON.							
Total for corresponding week of previous year	4,184	760 4 0	76 0 0	15,575 10	614 0 0	31 8 0	117 8 0
Per mile of railway, corresponding week of previous year	149	27 2 5	2 14 5	554 23	14 17 7	1 0 7	4 4 0
Total to corresponding date of previous year	8,912½	1,426 5 0	142 10 5	27,803 5	1,288 14 3	73 7 0	218 4 8



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JULY 30, 1873.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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Proceedings of the Council of the Lieutenant-Governor of Bengal for the purpose of making Laws and Regulations.

Saturday, the 26th July 1873.

Present:

HIS HONOR THE LIEUTENANT-GOVERNOR OF BENGAL, *presiding*.
 The Hon'ble G. C. PAUL, *Acting Advocate-General*,
 The Hon'ble H. L. DAMPIER,
 The Hon'ble V. H. SCHALLER,
 The Hon'ble LORD ULICK BROWNE,
 The Hon'ble C. E. BERNARD,
 The Hon'ble MOULVIE ABDOL LUTEEF, KHAN BAHADOOR,
 The Hon'ble T. M. ROBINSON,
 The Hon'ble RAJAH JOTEENDRO MOHUN TAGORE, BAHADOOR,
 and
 The Hon'ble BAROO DIGUMBER MITTER.

THE HON'BLE MR. BERNARD took the oath of allegiance, and the oath that he would faithfully fulfil the duties of his office.

EMIGRATION TO THE LABOR DISTRICTS.

THE HON'BLE THE ACTING ADVOCATE-GENERAL moved that the time prescribed for the presentation of the Report of the Select Committee on the Bill to amend the law relating to the emigration of laborers to the Districts of

Assam, Cachar, and Sylhet, and to regulate contract labor and service, be extended for one month. He regretted to say that the Committee had not been able to complete their report. The Bill was in progress, the whole matter had been carefully revised, but it would require a little further time to complete the labors of the Committee. In addition to their labors on the Bill referred to them, there were other new matters which required consideration; and for the purpose of devoting their attention to those subjects, he asked for this further time.

HIS HONOR THE PRESIDENT said, before this motion was passed he wished to say one word in order to ask the Members of the Select Committee and the Council to give their serious consideration to a question radically affecting the Bill, which had been raised in a correspondence between the learned Advocate-General and himself. His Honor was very far from asserting that the proposition submitted by himself in a very rude and rough form was the right thing to do. But at the same time he might venture to say that the more he heard and the more he had seen of the opinions of those most competent to form an opinion, the more he was inclined to think that there was something in the proposition which he had submitted for the consideration of the Committee. He was very much impressed with the belief that it was not expedient in any manner to check emigration to districts where labor was scarce. In some parts of India the population was overcrowded, which led to considerable evils, unhealthiness, and disease: on the other hand, in other parts of India, and notably in the Provinces of Assam and Cachar, there was a want of population, and it was the supply of population which would develop the growth of produce and the sanitary condition of the country, and produce wealth, health, and contentment in future generations. His own inclination was to say, God forbid that we should do anything to check emigration to these districts; on the contrary, we should promote emigration to the utmost extent of our power. Well, that being so, it seemed to His Honor that if there were a question whether we had over-legislated in restriction of emigration, or whether, perhaps, not having over-legislated, matters had so far improved that in future the area and scope of legislation might be diminished, that was an important matter, and one which ought not to be lightly passed over. It appeared to His Honor that we ought not to pass a new Bill without fully considering a question of that kind. Although his own personal experience was comparatively small, looking to the replies that had been received from some of the most experienced men, something was to be said for the proposition that had been made. Hon'ble Members who had studied the replies received from merchants and planters interested in the subject, would see that a great deal had been said in favor of the proposition.

Then our position was this: Hon'ble Members in the Council, and he as head of the Government, were bound impartially to look to the interests of all the parties concerned, to the interests of the natives of the country, to the interests of the planters and the enterprising Europeans developing the growth of the tea industry. But His Honor himself took this view, that the planters were persons who were very competent to take care of their own interests by their knowledge and their power of making themselves heard. The coolies, on the other hand, were not so competent; they were not so competent to make themselves heard in this Council. We had heard the views of the planters, but had not had an opportunity of hearing the views of the coolies. As head of the Government and President of this Council, His Honor was, he felt, particularly charged with the duty of looking after the interests of the cooly. Looking, then, to the interests of the cooly as well as to those of the planter, he thought it might be a question whether in the interests of both parties a proposition for a great relaxation of these restrictive laws might not be worthy of consideration. While we had done a great deal to protect the cooly in regard to recruiting, the voyage, and other matters; while we had imposed restrictions on the planters; whilst we had protected the cooly from harm in various ways, we had also imposed on the coolies serving under contract in the tea districts penal laws of extreme stringency—to such a point, that the cooly who was conveyed to the labor districts under those laws, became legally

and practically a slave: he was for three years legally and indisputably a slave. His Honor did not use the word in a bad sense. The cooly was compelled to labor to the end of his term as a man not free and his own master, and in that sense was a slave. It was true that he generally did serve under a good and reasonable master, but he was not free. He was bound down for three years, not only by the terms of his contract and by penal laws, but by physical subjection to his master, who, on the cooly's attempting to run away, could seize him and bring him back to work. In a country where the tea plantations were in the midst of jungles, that was an enormous power given to planters over labourers—a power which had sometimes been abused, though not in the great majority of cases. It was a power which, speaking technically, reduced the cooly to the position of a slave. Moreover, under the existing law, if the cooly contracted again in any shape, he again came under the penal laws and became a slave. His Honor must say for himself that he held that above all things the blessings of freedom were great blessings. He much disliked this system of bondage. He very much inclined to doubt whether the advantages the cooly gained were not more than counterbalanced by the penal laws by which he was subject to this bondage. It appeared, then, to him to be particularly in the interest of the cooly that a modification and diminution of those restrictive laws were suggested. If he was in any degree right that a mitigation of the law would be advantageous for the cooly, he was met by the planters, who were the best judges of their own interests, and who had experience to guide them. A large number of these planters did think that in their interests and in the interests of the coolies it was right to diminish the restrictions now imposed by law. We had not had time to receive replies from many Assam planters, but we had received many from Cachar. Looking to the replies received from Cachar, His Honor believed that the move in the direction of freedom was accepted by the planters as a move in the right direction. As far as Cachar was concerned, he was much inclined to think that we might do away with the restrictive provisions. Although the proposition submitted by him was his personal suggestion, it had now taken a phase which rendered it, he ventured to say, worthy of the attention of the Select Committee and the Council. He had expressed his views in a temperate manner; he had not pledged his mind to those views; he was prepared to alter them if on the whole there seemed reason for doing so; and he felt confident that his colleagues who had begun with the other opinion would also take a similar course. He hoped that this question would be thoroughly discussed before we came to a final conclusion on the Bill. He trusted it might be a conclusion which would be satisfactory to all parties.

The motion was then agreed to.

HOWRAH LIGHTING-RATE.

THE HON'BLE MR. DAMPIER said, when he had the honor of presenting to the Council the report of the Select Committee on the Bill for providing for the further lighting of the town of Howrah, the Council determined that it should be published, and that time should be given to those concerned to make any representations they might think proper; since that date but one petition had been received from the Howrah People's Association, and that body expressed itself to be generally satisfied with the report and with the way the Bill had been laid before the Council by the Select Committee. There was, however, a memorial which had previously reached His Honor the President, but which had not yet been discussed by the Council, and as that memorial went the length of objecting to the Bill altogether and praying for its withdrawal, it would be necessary for him to examine such parts of the memorial as concerned the business with which the Council had to do. There was a great deal in this memorial which did not affect the business of this Council, and with which therefore he should not take up the time of Hon'ble Members. The Executive Government would no doubt profit by the suggestions made and the care given by the memorialists to looking into the administration of the

municipal affairs of Howrah generally, and would pass such orders as might be necessary.

To clear the way, it would be well to state the legal position in which the Bill now existed. As the law stood, the Municipal Commissioners of Howrah, if they could get the sanction of the Lieutenant-Governor, might light every part of their town with gas; they might devote to the expenses of such lighting every pice of the general rate which could be levied; or they might light half the town with gas and leave the other half uncared for. But, whatever else they might do, they were obliged to make every rate-payer in the town contribute proportionably to the expense of lighting by gas, whether he benefited by such lighting or not. It would hardly be argued that that was a satisfactory state of law. The object of the Bill was to provide a remedy, and in considering its provisions it would be well to divide them into two parts—first, those affecting the portion of the town already lighted with gas; and secondly, those which related to future possible extensions under the powers proposed to be given. Mr. Dampier would begin by accepting the statement of the memorialists in paragraph 2 of the memorial, that the primary object of the Bill was “to find money for the existing contract between the Municipality and the Oriental Gas Company.” Paragraph 3 went into the merits of the contract, but that was one of the points which did not touch the business before the Council. The contract had been made; that was a fact with which the Bill had to deal. No modification of the terms of the Bill, not even its withdrawal, could cancel the contract; money must be found to meet it; it must be found for the next fifteen years; and the only question was, what was the most equitable mode of finding the money.

Again, Mr. Dampier accepted the statement of the memorialists in paragraphs 12 and 13—

“The gaslight, your memorialists submit respectfully, has been introduced chiefly in those parts of the town where there are Government or Railway buildings, or which are inhabited by European residents. * * * * * The gaslight is admittedly a luxury, and it cannot be just or equitable that the bulk of the rate-payers, who, as shown above, are poor, should be taxed for the convenience and advantage of a few rich persons.”

Now, the object of the Bill was to provide the remedy indicated in that very statement. In the 13th paragraph the memorialists went on to ask—

“If the principle of selecting a few tracts for gaslights be recognized in practice, it may well be argued why it should not be applied to other works of the Municipality.”

To this it would be sufficient to reply that the Council were now trying to remedy one ascertained existing defect, and not to lay down general principles for municipal taxation and legislation.

There was one other passage in the memorial which he could also accept for the purpose of this present discussion:—

“Notwithstanding the high rate of taxation prevalent in Howrah, the primary wants of the town are, it is notorious, not attended to.”

And then the memorialists went on to say that the roads were not metalled, they were not watered, and no conservancy carts found their way to certain parts of the town, and so on. Admitting that statement to be a correct representation of the state of things, he would reply that the immediate effect of the Bill would be to apply at any rate, a partial remedy. Whether the proceeds of the rate proposed would be Rs. 9,000 as estimated by the memorialists, or Rs. 14,000 as estimated by the Magistrate and the Municipal Commissioners, to that extent the general funds of the Municipality would be set free as soon as this Act took effect, and the money would be available towards the metalling of roads, the lighting with oil, and satisfying the primary wants of the town, which, the memorialists said, were not now satisfied.

In paragraph 14 there was the objection that the Municipal Commissioners might—

“give one light at one end of a street and include the whole of it within the area of taxation. The Bill does not prescribe the distance within which lamps are to be posted, and it will be therefore entirely at the discretion of the Commissioners to vary the intervals.”

The memorialists objected to a discretion being left to the Commissioners. The Select Committee had met that objection. As the Bill was introduced, it was open to the criticism that the Commissioners might light one end of one street and tax the whole town for lighting that particular spot. But the Bill, as now before the Council, imposed the most stringent restrictions which the Select Committee could devise in that direction. The Commissioners must first define the area they were going to light, they must then make a scheme for lighting that area, and then as the scheme was (according to the amendment he proposed to move) to be ventilated and published in the *Gazette*, those concerned would be able to propose alterations or object to the scheme altogether. Therefore, he said, the Select Committee had met the objection taken in paragraph 14 of the memorial.

In paragraph 6 the memorialists represented that —

“It cannot be reasonable or just that 97,000 native inhabitants should be subjected to an oppressive system of taxation far beyond their means for the sake of 200 Europeans, many of whom are also not permanent residents of the town, constantly floating about from the nature of their service under the Railway Company.”

As to the portion of the Municipality already lighted with gas, the memorialists themselves said that gas-lighting had been applied to that part of the town where there were Government and railway buildings or which were inhabited by European residents, and the Magistrate had reported that the Railway Company paid no less than one-fifth of the whole taxation of house and land property in Howrah, so that for this portion at any rate the bulk of the rate-payers would not suffer much.

And this brought him to the second head under which he had proposed to consider the provisions of the Bill—the possible future extension of gas-lighting under its operation. It was not in any way the object of the Bill to throw a lighting tax or to impose gas-lighting on the 97,000 persons referred to by the memorialists. It is true that in the statement of objects and reasons presented when the Bill was introduced, it was said that the intention of the Municipal Commissioners was to extend the benefit of lighting to the whole town. But the Select Committee had given up that object altogether. If Municipal Commissioners expressed any such wish and came up to the Lieutenant-Governor with any such proposal, Mr. Dampier hoped and felt sure that His Honor would promptly negative it. Any such wholesale extension would obviously be unadvisable and unwise.

The only postulates on which the Bill was founded were, that a certain portion of the Municipality was already lighted with gas; that in the course of things it was not unreasonable to suppose that lighting by gas might properly be extended to some other portions of the Municipality; that such lighting would generally be confined to the richer portions of the town; and that the expense of this luxury of lighting by gas should fall on those who directly benefited by it, and not (as the law now required) on the whole body of rate-payers, irrespective of the distance at which they lived from the portions so lighted.

The memorialists had given many figures to prove their case; but Mr. Dampier thought it was unnecessary to go into them, because he quite admitted the position which those figures went to prove, that it would be absurd to extend lighting generally to the whole of Howrah. Mr. Dampier was anxious not to appear to put himself in a position of hostility towards the memorialists, many of whose statements he had been able to accept, and who were quite right in bringing their objections before the Council. But he must draw attention to the figures given at the end of paragraph 5. The memorialists there said that the population was 97,781, and the taxes on houses, lands, and buildings, amounted to Rs. 1,21,816. On these figures they gave the incidence of taxation per head as Rs. 1.9. But if Hon'ble Members would go through the calculation, they would find that, taking the figures as given by the memorialists, the incidence of taxation came to something under Rs. 1.4 per head, and not Rs. 1.9 as given by them. It might be assumed that this first and most important item, relating to Howrah itself, had received at least as much care and attention at the hands of the memorialists as any of the other figures in their statements, and as that was so

inaccurate, Mr. Dampier did not think that he would be justified in taking up the time of the Council by entering further upon the figures given in the memorial. He must protest, on behalf of the Council, against statements which would not bear the test of addition and division being laid before them as facts which should guide their decision. But the matter was not of much consequence, because he admitted the general proposition of the memorialists that it would be a hardship to impose a tax for gas-lighting on the whole body of rate-payers. Then, the memorialists made an objection referring to some sort of expectation having been held out that no such rates would be imposed, but that was an objection which Mr. Dampier would leave to His Honor the President to deal with.

And now, having explained the object and effect of the Bill as far as it lay in his power to do, he would only ask those hon'ble members who were inclined to view the Bill generally with disfavor, to consider that it might very well be entitled "A Bill to prevent the extra cost of lighting by gas being thrown on persons who did not benefit by such lighting;" and if the Council would look on the Bill in that light, he hoped they would be satisfied that it was reasonable and proper.

With these remarks he moved that the report of the Select Committee be taken into consideration in order to the settlement of the clauses of the Bill, and that the clauses of the Bill be considered for settlement in the form recommended by the Select Committee.

THE HON'BLE RAJAH JOTENDRO MOHUN TAGORE said, before the Council proceeded to take into consideration the clauses of the Bill, he wished to offer a few remarks. It appeared to him that the inhabitants of Howrah took objection to the Bill on two grounds. They stated that an expensive system of drainage works had been introduced which had caused a considerable portion of the general funds to be applied to that purpose, and that the general management of the funds had not been so economical as it might have been, so that there had been more money expended than was necessary. And from that they argued, that if the Municipality were more carefully managed and the expensive system of drainage not persisted in, there would be no necessity for imposing an additional lighting-rate. The Magistrate of Howrah had answered some of the objections of the memorialists. But since coming to the Council this morning Rajah Jotendro Mohun Tagore had learned that these rate-payers had sent an application to the Council praying that they might be allowed time before the Bill was taken into consideration to enable them to reply to the objections and criticisms made by the Magistrate of Howrah in regard to their memorial. It appeared to Rajah Jotendro Mohun Tagore, that as the Government had been pleased to call on the inhabitants of Howrah to submit an expression of their opinion; it was but fair to allow them an opportunity of offering any remarks they might wish to make on Mr. D'Oyly's letter. Entertaining that view, Rajah Jotendro Mohun Tagore would submit to the Council whether it would not be desirable to allow the memorialists time to send in their representation before proceeding to the consideration of the Bill.

THE HON'BLE BARON DIETRICH MITTER said, he would support the amendment if there was no valid objection to its being put, to as to enable the memorialists to make any reply to the Magistrate's letter that they might consider necessary—to give them, in fact, the satisfaction of being heard in reply to Mr. D'Oyly's letter, even if no good was likely to come of it.

HIS HONOR THE PRESIDENT said, he would say one or two words on the question before putting the motion. It seemed to him very clear on the face of the petitions before the Council that all parties were agreed that we must have a Bill on this subject. The Hon'ble Member who brought forward the Bill, and the Hon'ble Member now in charge of the Bill, and the Committee, considered that, in order to obtain a settlement of this question of gas-lighting expenditure, a Bill was necessary. Those who petitioned against the Bill, petitioned on the ground that it would not be fair to burden the whole of the inhabitants with the burden of gas-lighting, but only that portion of the inhabitants who would benefit by such lighting. That was precisely the main object of the Bill before the Council. All agreed that this tax of paying for

gas-lighting should not be extended to the whole Municipality, and that was exactly the primary object of the Bill. Therefore he might assume that we were all agreed that there must be some Bill. We were irretrievably committed to lighting a certain portion of Howrah with gas. It was so lighted; a contract had been made which the Municipality could not get out of; funds must be found; and the only question was whether the Municipality at large should find the money or only a limited portion of it. So far we were all agreed.

Then, as to the power to extend further the lighting by gas. The Hon'ble Member in charge of the Bill had told us there might be some mistake in the statement of objects and reasons. He declared for himself, and His Honor might say for himself that the object was not to light all Howrah with gas contrary to the wishes of the people, but to limit the area of such lighting and of the taxation consequent, that was to say, that the benefit of gas-lighting should be conferred only on those of the inhabitants of Howrah who of their own free will, and not from any pressure from the Government, desired to have the benefit of such lighting. If the inhabitants of any part of the Municipality should desire to extend gas-lighting to that part of the Municipality, the Bill gave power to extend lighting to that portion only, and they should pay for it themselves. So far there was not, he apprehended, any objection to the Bill. His Honor believed that that principle of extension was agreed to by the people. There could be no extension of gas-lighting except by the voice of the people who would be taxed. And there was a further check provided by the Bill on the part of the Government which His Honor pledged himself, so long as he should have the honor of being at the head of the Government, should be carefully exercised. This part of the Bill was then, he thought, sufficiently stringent.

The only other view that it was possible to take of the Bill was this, that it might be said that the present rate of municipal taxation, if taken at its maximum, was more than enough to cover the ordinary expenditure, and that we ought to take the expenditure on account of gas-lighting in diminution of the ordinary taxation. It was said that, allowing that there should be a special tax on account of gas, what you took for ordinary purposes should be diminished by so much. It might be that drainage was a bad thing. His Honor thought it a good thing. It might be that there were extravagances on the part of the Municipality. It might be that the present maximum of taxation was too high; but that was a suggestion which, he thought, would not hold water. He found by the figures given by the Magistrate that it was made clear that the total incidence of taxation in Howrah was Rs. 1-2-2 per head, and not Rs. 1-9 as stated in the memorial. In His Honor's view, that was not an exorbitant rate of taxation. When we considered that Howrah was no rural Municipality—that a great part of Howrah was metropolitan—that a great part of the population was European—that Howrah was in fact a European town—that it was in fact a portion of the Metropolis of India; when we considered that the taxation of Calcutta was some 5, 6, or 7 rupees per head of the population; when we considered that the taxation of the comparatively poor and rural town of Burdwan was greater than that of Howrah, he would not admit that the incidence of taxation in Howrah was too severe. And considering that the drainage of Howrah was a pressing necessity, and Howrah was now being connected with Calcutta by a bridge, it would require new plans of improvement. You could not carry out the ordinary conservancy, repairs of roads, drainage, and everything, out of the ordinary taxation if it were put at too low a rate. For these reasons His Honor was convinced that it was necessary to impose a tax for gas-lighting in addition, and not in substitution, of the ordinary taxation.

The Hon'ble Member in charge of the Bill had said that he would leave His Honor to deal with the representation of the memorialists that there had been a pledge given by the Government of India that there should be no more fresh taxation. On that point all he had to say was that he had addressed the Government of India on that point, and had received an answer which had been communicated to the memorialists. He never supposed that the pledge amounted to this, that persons should not be allowed to tax themselves

for a specific advantage for their own benefit. The Government had given the answer that it did not apply to this case, and that was all the explanation His Honor had to give.

Then the Hon'ble Member who had proposed a postponement, said that it was required to enable the memorialists to consider what reply they could give to the observations of the Magistrate. If ever there was a Bill in respect of which ample time had been given for consideration, it was this Bill. It had been nearly three months before the public since the presentation of the Select Committee's report. It had been postponed in order that there might be a free and full expression of the opinion of the people who would be affected by its provisions; and full advantage had been taken of the opportunity afforded. The people had interested themselves in the matter, and he would express his satisfaction that an active interest had been taken by the inhabitants. We should not have wished to offer any opposition to a postponement, but that a great deal of time had already been given to those who were interested in their own affairs. They had considered their own affairs and placed their views before the Council. It might be said that they had not had the opportunity of putting in a final answer to the statements submitted by the Magistrate. On that point he would ask Hon'ble Members to remember that certain amendments were about to be proposed, and in accordance with the rules of the Council, the Bill, if amended, could not be passed at this sitting, and consequently it would be necessary to postpone the consideration and passing of the Bill to another meeting. That being so, it appeared to him that there was no sufficient reason to delay the consideration of the Bill at this stage. To postpone the business now would render our meeting abortive and useless. If there was anything which the petitioners wished to controvert, they would have an opportunity of controverting it before the Bill was finally passed into law.

THE HON'BLE RAJAH JOTEENDRO MOHUN TAGORE said, with due deference to the Hon'ble the President, he would take leave to draw the attention of the Council to the 16th paragraph of the memorial. It was true the memorialists had accepted the position that the contract having been entered into, must be adhered to; but they had urged that if an expensive system of drainage had not been undertaken and the municipal funds had been more economically managed, there would have been no necessity for the Bill; and they showed that in the budget statement of receipts and disbursements for 1873-74 the amount to be realised would be enough to cover the expenses of the year, including a provision for Rs. 22,000 on account of gas-lighting (which was more by two thousand rupees than the amount of the original contract). And there would consequently be no necessity for additional taxation unless the expensive system of drainage already commenced were to be carried out with the present funds. He did not for a moment say that an efficient system of drainage suited to the means of the Municipality should not be undertaken; but if the general funds of the Municipality should not be sufficient to meet that purpose, it would be necessary to ask the Council to impose a tax for drainage, and not for lighting. It would be for the Municipal Commissioners to come up and ask the Government with a suitable scheme, and for the Government to consider whether an additional tax should be imposed for drainage, or whether by more careful management sufficient funds could not be found for the purpose. He spoke in the assumption that the figures given by the memorialists were correct. That being the case, he thought it would be fair to give the memorialists another opportunity of explaining themselves further as to their objections.

THE HON'BLE MR. DAMPIER said, he had hoped to avoid any discussion of these statements of the memorialists and the replies of the Magistrate, because, as he had said before, he did not think they affected the matter which he had now the honor of laying before the Council. There was this money to be paid; there was the area lighted. Did the Hon'ble Member who moved the amendment insist that the payment for this lighting should fall on the whole of the tax-payers of Howrah, and not only on those who benefited? That was what the memorial led to. The contract, it said, no doubt must be observed; but it seemed to say, we object to the expedient provided by the Bill for throw-

ing the cost of the lighting on those who benefit to the relief of the general rate-payers. Surely it was proper to throw the burden, or most of it, on those who benefited, and with the Rs. 9,000 or Rs. 16,000 of the general fund which would be thus set free the Municipality could do what they liked. It was for the Commissioners to deal with the money thus set free; they might either reduce the general taxation by that amount, or apply it to drainage purposes or oil-lighting or anything else. All he said was that the burden of raising the money which was devoted to lighting purposes should be thrown on those who benefited by it. It was quite open to the Commissioners, in the interests of the people, to say either that they would expend the money thus made available on the general objects of the Municipality, or that they would strike off the amount from the general taxation.

As he should propose the amendment of which he had given notice, the Bill could not be passed that day, and before it could come up again, the memorialists would be able to make any further representations. But it would be a mere waste of time now to postpone the consideration of the Bill, in order (as suggested by the hon'ble mover of the amendment) merely to give the memorialists the satisfaction of controverting the statements made by the Magistrate of Howrah, most of which really did not affect the questions with which the Council had to deal.

THE HON'BLE BABOO DIGUMBER MITTER said, that what his hon'ble friend (Rajah Joteendro Mohun Tagore) really meant appeared to him to be, that the lighting-rate for all practical purposes being in addition, and not in reduction, of the maximum rate hitherto levied by the Municipality, it would afford no relief to the majority of the rate-payers. In all probability the maximum rate would be still continued, and what had been hitherto expended from the general funds towards lighting a certain part of the town of Howrah, would now be devoted to carrying out the drainage works commenced upon in the same quarter, in the benefits of which such outlying places as Sibpore, Bellore, and others of which the Municipality is composed, could not participate, and which it was not likely would ever be extended to them. To afford real relief, the hon'ble member thought, there should be a drainage rate, leviable upon the principle of the lighting from those only who would benefit by those works.

HIS HONOR THE PRESIDENT said, it would be time enough when such an amendment was proposed to consider whether the amendment the hon'ble member suggested was a fit subject of amendment in this Bill, or whether another Bill on the subject should be introduced. The hon'ble member who had last spoken (Baboo Digumber Mitter) was clearly in favor of such a Bill as that now before the Council: therefore he would probably not oppose the motion for the consideration of the report of the Select Committee, in order that it might be passed as it stood or as it might be amended.

THE HON'BLE RAJAH JOTEENDRO MOHUN TAGORE then moved that the consideration of the Bill be postponed for a fortnight.

The motion was negatived and the original motion was then agreed to.

THE HON'BLE MR. DAMPIER said, the amendments of which he had given notice appear rather formidable, but if hon'ble members would examine them they would see that Section 2 as it stood before was one long section divided into three paragraphs. The necessity of altering it arose from a suggestion made by the Howrah Peoples' Association, who said they were satisfied with the restrictive power given to the Lieutenant-Governor, but that they should like to have the scheme for lighting published in the *Gazette* at the time it was laid before the Lieutenant-Governor, so that people should have the opportunity of making remarks and objections. He thought that a reasonable suggestion, and therefore he had made provision for it in the amendment. That was the only substantial change that was proposed, the rest was a mere re-casting of the form and wording of the sections. He moved that Sections 2 and 3 of the Bill be omitted, and the following sections, numbered 2, 3, 4, and 5, be substituted for them:—

"2. It shall be lawful for the Municipal Commissioners from time to time to submit to the Lieutenant-Governor, for his sanction, a scheme for lighting or for continuing to light with gas any portion of the town of Howrah, such portion of the said town having been previously defined by the Municipal Commissioners at a

Municipal Commissioners may submit to the Lieutenant-Governor a scheme for lighting.

meeting held for that purpose. The Lieutenant-Governor, after publication of the scheme for one month in the *Calcutta Gazette*, and after consideration of any objections which may be raised to it, or alterations suggested in it, may, if satisfied that proper provision has been made for the lighting, sanction such scheme; or may refuse his sanction to such scheme, or may return it to the Municipal Commissioners for alteration in certain particulars to be specified by him, and, when altered, may sanction it as altered. The Lieutenant-Governor shall cause his sanction to any scheme to be notified in the *Calcutta Gazette*, and shall at the same time cause the scheme sanctioned to be published in the said *Gazette*.

3. After notification by the Lieutenant-Governor as in the last preceding section mentioned, it shall be lawful for the Municipal Commissioners to impose an annual rate not exceeding two per centum of their annual value upon all houses, buildings, and lands situated within such portion of the said town, for the purpose of defraying the whole or part of the expense of lighting.

Lighting-rate not exceeding two per centum may, after sanction of scheme, be imposed on houses, buildings, and lands.

4. So soon as a rate has been imposed under the last preceding section, the Municipal Commissioners shall immediately thereupon cause such portion of the said town to be lighted with gas according to the scheme sanctioned by the Lieutenant-Governor.

After rate imposed, lamps must be lighted.

5. The rate imposed under section 3 upon houses, buildings, and lands, shall be paid by the occupiers thereof by quarterly instalments in advance; but no rate shall be leviable until the lamps in the portion of the town to be lighted shall have been lighted, nor shall any rate be leviable for any quarter or portion of a quarter antecedent to such lighting. Arable lands and lands used for pasturage, and buildings used exclusively as places of public worship or applied solely to charitable purposes, shall not be liable to the rate."

Rate payable by occupiers quarterly in advance.

Arable lands, &c., exempted from rate.

THE HON'BLE RAJAH JOTEENDRO MOHUN TAGORE moved that in line 12 of the proposed Section 2, after the words "*Calcutta Gazette*," the words "and by notification in the vernacular posted in conspicuous places within the said town of Howrah," be inserted. Very few of the inhabitants of Howrah would have the opportunity of seeing the *Gazette*, and it would be desirable that the inhabitants generally should have the opportunity of knowing what the scheme was.

With regard to Section 3, he did not quite understand what the latter portion of it meant. If it was intended that the rate was to defray only a part of the cost of lighting, and that the rest was to come from the general funds, that would nullify the effect of the provision that no portion of the expense of lighting should be defrayed from the general fund, so that those only should pay who would benefit by the introduction of gas.

This, he understood, was the chief recommendation of the Bill; but with such a provision it would be practically set at naught.

THE HON'BLE MR. DAMPIER said that he admitted that the Bill was open to the objection that it contained this theoretical defect. But the provision in question was absolutely unavoidable unless hon'ble members were prepared to screw up the proposed rate to whatever might be necessary to meet the whole cost of lighting. In the part of Howrah already lit with gas a rate of 2 per cent. would not cover the contract by which the Municipal Commissioners were bound for the next fifteen years, and there would be some Rs. 4,000 or more to be met from the general fund. That undeniably was a defect in the Bill. If the hon'ble member would propose a higher rate being fixed, for the sake of adhering to the principle that those who benefited should pay the cost of the lighting, the Council would doubtless be prepared to consider it; but the suggestion appeared to meet with no favor when he himself threw it out for consideration on the last occasion when the Bill was before the Council. The Magistrate had explained distinctly that for certain reasons not specified this contract was entered into at a higher cost than the Calcutta contract, and that in any future extensions that might be made it was expected that the contract would be obtained on better terms, and that a 2 per cent. rate would be ample to cover the whole cost. As the case of the area already lighted was peculiar and exceptional, he would himself oppose any amendment of which the object was to give the Municipal Commissioners and executive Government the power of imposing a 3 per cent. rate generally for lighting, merely for the sake of saving the principle as regards this one isolated case.

THE HON'BLE RAJAH JOTEENDRO MOHUN TAGORE observed, that if he understood the matter rightly, he supposed the relief to be given was a prospective one, and was to be postponed for the next fifteen years. In that case the whole

principle of the Bill was open to question, and the ground upon which the Bill was introduced seemed to have been completely altered.

HIS HONOR THE PRESIDENT said, as he understood the matter, it appeared to him that the rate-payers who did not benefit from the lighting, but at present paid for it, would be relieved to the extent of the rate, and the residuum would remain a burden on the general rate-payers. The hon'ble member in charge of the Bill was quite correct when he said that this could only be remedied by proposing an amendment raising the special lighting-rate to a higher point than the present Bill proposed.

The question that Sections 2 and 3 of the Bill be omitted, was agreed to.

The new Section 2 with the proposed amendment thereto was then agreed to.

The proposed Section 3 having been read—

THE HON'BLE BAROO DICUMBER MITTER moved that in line 7 the words "three per cent." be substituted for "two per cent." He said the object of the amendment was to fully assert the principle on which the Bill was based, that those only should contribute towards the cost of lighting by gas who benefited by it. And as it appeared that a rate of two per cent. would not meet the present charge of the contract entered into with the Gas Company, he would propose, rather than the principle of the Bill should be sacrificed, that a rate of three per cent. should be levied.

THE HON'BLE THE ACTING ADVOCATE-GENERAL said, it appeared to him that the amendment now proposed would introduce a radical change. He thought all persons concerned should have had information of such a proposal, and that three per cent. should have been inserted in the draft of the Bill. The proposal seemed to him not to come within the scope of an amendment so suddenly put in Council.

THE HON'BLE LORD ULICK BROWNE said, it seemed to him necessary, on the principle adopted, to raise the rate from two to three per cent. He understood that two per cent. would be insufficient to defray the entire cost of lighting, and Sections 3, 4, and 5, as proposed by the hon'ble member in charge of the Bill, provided that further portions of the Municipality might be continually added to the gas-lighted area. If the rate was insufficient to defray the whole charge of the lighting, the additional charge would be thrown on the general funds of the Municipality, and consequently become payable by the inhabitants of the whole town in proportion as additional portions of the town were lighted. Thus, supposing that the lighting of the first portion cost Rs. 10,000, and that the lighting-rate produced Rs. 7,000, then the inhabitants would have to pay out of the general fund Rs. 3,000. If another portion were added to the lighted area at the same expense, then another Rs. 3,000 would have to be paid out of the general fund; and in this way you would go on increasing the charge on the municipal general fund, and therefore imposing more and more expense on the inhabitants of the Municipality in general, whether the portion they lived in was lighted with gas or not.

THE HON'BLE MR. SCHALCH said, it appeared to him that two cases would fall under the provisions of Section 3—first, the case already arisen of the contract already made and which must be paid for; and secondly, new extensions for which no contracts had yet been made. As a rate of two per cent. would yield Rs. 14,000 in the portion of the Municipality already lighted with gas, whereas the contract cost was Rs. 20,000, it would leave a deficit of Rs. 6,000 to be borne by the general fund. But it was anticipated that a rate of two per cent., even in that portion of the Municipality which was now lighted, would cover the cost when the present contract expired. Therefore we might assume that a rate of two per cent. would cover the cost in future extensions. Therefore, according to the Magistrate's letter, a rate of more than two per cent. would not be required. Therefore, whilst we provided that a rate of two per cent. should be imposed to meet the cost of future extensions of lighting, we might put in a proviso saying that the Commissioners might impose a rate of three per cent. in the portion of Howrah now lighted during the currency of the present contract.

HIS HONOR THE PRESIDENT said, he was somewhat unwilling to put to the Council so very radical a change without notice. It was a very radical change, and one which required very full and very careful consideration. But as he had already permitted the hon'ble member to make the motion, he thought he might take the opinion of the Council upon it, on the understanding that if this change was made time should be given to the Council and to the inhabitants of Howrah to digest that change, to review what was done, and to consider whether what had been done, had been done rashly and without sufficient deliberation. It was suggested, and in fact stated by the hon'ble member in charge of the Bill, that his view of the matter was this, that the present contract for lighting a portion of the town of Howrah was a somewhat extravagant contract, and that it was hoped that future contracts would be made on better and more favorable terms; that with regard to future contracts a rate of two per cent. would be sufficient. The present extravagant contract was made by the rate-payers at large through their representatives the Municipal Commissioners; the representatives of the Municipality then made this extravagant contract, of which, we were told, one-third was extravagant and two-thirds only afforded a *quid pro quo*. Therefore we might fairly say that on the special part of the town we would only impose a tax to the extent to which they had benefited, and not to the full extent to which the general body of the rate-payers had, through their representatives, committed themselves. Therefore, as the proposed amendment changed the essence of the Bill which had been so fully considered, His Honor was somewhat adverse to it. Perhaps the Council would leave the Bill where a careful Committee, after much deliberations, had put it. He would put the amendment, whether the rate should be 2 or 3 per cent. as a maximum, reserving for consideration future amendments in regulations, or qualification of the 3 per cent. rate, if a rate of 3 per cent. were adopted by the Council at this sitting.

The question being put,

The Council divided.—

AYES 7.

The Hon'ble Baboo Digumber Mitter.
 " " Rajah Joteendro Mohan Tagore
 " " Mr. Robinson.
 " " Mr. Bernard.
 " " Lord Ulick Browne.
 " " Mr. Schaleh.
 " " The Acting Advocate-General.

NOES 3.

The Hon'ble Moulay Abdoel Latteef.
 " " Mr. Dampier.
 His Honor the President.

The motion was therefore carried.

On the motion of the Hon'ble Baboo Digumber Mitter the words "or part" in the 10th and 11th lines of the section were then omitted.

The proposed Section 4 having been read—

HIS HONOR THE PRESIDENT said there appeared to him to be some difficulty in regard to this section. The section provided that—

"As soon as a rate has been imposed under the last preceding section, the Municipal Commissioners shall immediately thereupon cause such portion of the said town to be lighted with gas according to the scheme sanctioned by the Lieutenant-Governor."

Supposing it was found that the Municipality could not complete the scheme sanctioned by the Lieutenant-Governor for the money? He supposed that the Commissioners could not be called upon to perform an impossibility. We had frequently seen that schemes submitted by the most eminent engineers could not be carried out within the estimates framed. He proposed therefore to add to this section the words "or so far as the rate will permit."

THE HON'BLE THE ACTING ADVOCATE-GENERAL observed that the words proposed to be inserted seemed to him to be unnecessary. The scheme must be made according to the money to be expended.

HIS HONOR THE PRESIDENT remarked that the amendment he had proposed had reference to the question of the responsibility of the Lieutenant-Governor. The Lieutenant-Governor passed a scheme and called upon the Commissioners to carry it out. The Commissioners found that the scheme could not be completed within the estimate. That was the false position from which he wished to absolve both the Commissioners and the Lieutenant-Governor. The

Lieutenant-Governor would be put in a very awkward position if he was to be bound to carry out a scheme whether it could be completed within the estimate submitted or not. We all know that estimates were often deceptive. The Lieutenant-Governor was only human, and could not be sure of keeping engineers within compass.

THE HON'BLE MR. SCHLACH said that these works were carried out in two ways—they might either be carried out by contract, or departmentally. Under the latter system a scheme was submitted and an estimate framed according to the market rates of labor and materials. In the meantime prices might rise. It had been found in works carried on by the Port Commissioners that, preparatory to the completion of a contract, the rates had risen by nearly 30 per cent.; therefore there must be some provision made to meet such cases. If you did not, in consequence of its being impossible to carry out a scheme fully within the estimate—if you allowed a scheme to be carried out in part, you would have the objection raised that a light might only be put at one end of a street and a light at the other, and notwithstanding that the whole street might be liable to be taxed. He thought that a provision of the kind proposed was absolutely necessary.

THE HON'BLE MR. DAMPIER said, he must observe on behalf of the Select Committee that they had anticipated such a dilemma as now stopped the way of the Council, and had been careful to keep in the Bill a provision which would admit of some portion of the general funds being applied towards the cost of lighting, so as to meet such difficulties in working.

HIS HONOR THE PRESIDENT observed that he must distinctly say this, that the Lieutenant-Governor could not accept the responsibility of passing schemes on the assumption that they could be carried out strictly within the estimates.

THE HON'BLE RAJAH JOTEENDRO MOHUN TAGORE remarked that, with such latitude to the Commissioners, it would hardly be necessary to restrict them at all.

The section as proposed to be amended was then agreed to.

The proposed Section 5 was agreed to.

THE HON'BLE MR. DAMPIER said, the effect of the amendments carried by the hon'ble members, who might be said to represent the objecting rate-payers of Howrah who strongly objected to this additional taxation, was to give the Municipal Commissioners and the executive Government authority to impose a tax of three per cent. instead of two. The amendment materially affected the character of the Bill, and he must now move that the Bill be referred back to the Select Committee to enable them to draft it as a homogenous whole.

THE HON'BLE BAROO DINGUMBER MITTER said, if we were at all to carry out the principle on which this Bill was based, he did not see how we could else get out of the difficulty. The Magistrate of Howrah had said that a rate of two per cent. on the portion of the Municipality lighted by gas would only raise Rs. 14,000, and the sum we had to provide to meet the present cost of such lighting was Rs. 20,000. The only remedy therefore was to raise the rate to three per cent., unless we preferred to abandon the principle on which the whole Bill was based.

HIS HONOR THE PRESIDENT said, the question as to the rate of taxation had been decided, and the question now was not whether the change that had been made was a radical change or not, but whether the change that had been made did not require that the minute provisions of the Bill should be looked into in order that they might be made to correspond and tally with the amendment. It was very important to see that all the provisions of the Bill fitted into the change.

The question that the Bill be referred again to the Select Committee with instructions to report in a week was then agreed to.

The Council was adjourned to Saturday, the 9th August 1873.

MAHOMEDAN EDUCATION, AND THE MOHSIN ENDOWMENT.

RESOLUTION.

GENERAL DEPARTMENT.

Education.

Calcutta, the 29th July 1873.

READ—

The following papers regarding the increased extension of educational facilities to Mahomedans in Bengal, namely,—

Bengal Government letter No. 2918, dated 17th August 1872, with enclosures.

Home Department Resolution and letter, dated 13th June 1873.

Also the proposals by Mr. H. Woodrow, then Officiating Director of Public Instruction, under date the 9th August 1872, with the Lieutenant-Governor's orders thereon.

Also letter No. 242B, dated 28th November 1871, from the Commissioner of Dacca, enclosing a memorial signed by Khajeh Abdool Gunny, c.s.t., and other Mahomedans of Dacca, praying for the establishment of a Mahomedan College at Dacca, and specifying the advantages and concessions they specially desire.

Also the Commissioner of Dacca's report, No. 102A, dated 16th June 1873, upon the question put by Government as to the languages which Mahomedan boys at Government schools in Eastern Bengal wish to learn.

The Lieutenant-Governor observes that all the Government schools in Bengal, except the Sanskrit College and the Hindu School in Calcutta, are already open to Mahomedan as well as to Christian and Hindu scholars; and he has, in the correspondence cited above, expressed his unwillingness to found, with Government money, special schools for any particular creed or denomination, though he was willing to sanction special classes for Mahomedans in exceptional circumstances. Accordingly, the Lieutenant-Governor had, in 1871, directed that if there were at any Government schools in Eastern Bengal, or elsewhere in Bengal Proper, sufficient Mahomedan scholars who desired to learn Arabic and Persian, arrangements should be made for teaching those languages in special classes. He submitted to the Government of India his view that we should teach the general body of Mahomedans of Bengal their own vernacular, which is Bengalee, in the Bengalee character, but with some infusion of Persian words; that we should teach Western learning to such Mahomedans as may seek it through the medium of English and vernacular, rather than through the medium of Arabic or Persian; but that we should, at specially endowed colleges, teach the classical languages of Persia and Arabia to Mahomedans in their own way, so far as to satisfy the requirements of their religion, their ideas of a liberal education, and the genuine demand for oriental learning for its own sake.

2. While the Lieutenant-Governor thought that the Government funds could not be properly devoted to separate Mahomedan colleges and schools to a greater extent than at present, he also felt that the endowment of Mahomed Mohsin of Hooghly, which is managed by the Government, afforded a legitimate means of promoting special Mahomedan education. Accordingly, in submitting these views to the Supreme Government, the Lieutenant-Governor proposed that so much of the Mahomed Mohsin endowment as is assigned for educational purposes should be spent in giving practical effect to proposals for furthering Mahomedan education throughout the country. In order that we might be able to devote the whole proceeds of the Mohsin educational endowment to Mahomedan education, the Lieutenant-Governor asked the Government of India to make some special grant to enable this Government to set free from the general purposes of the Hooghly College the Mohsin funds, and with the proceeds to defray the cost of Mahomedan Madrisas at the centres of Mahomedan population, such as Dacca, Chittagong, and Rajshahye.

3. The Government of India have now expressed their general approval of the Lieutenant-Governor's views and plans; and they have, with a liberality for which the Government of Bengal is most grateful, made for the purpose

indicated an addition of Rs. 50,000 to the grant for education in Bengal. This additional grant will enable the Bengal Government to maintain as a full-power college the large and successful general college at Hooghly. His Excellency the Viceroy in Council has also approved the appointment of a European officer on a salary of not less than Rs. 1,000 a month as Principal of the Calcutta Madrissa, and possibly as Superintendent of Madrissas in Bengal; and has expressed a wish that Mahomedan Madrissas or Departments should be grafted on to existing colleges and high schools at the centres of Mahomedan population in Bengal.

4. The funds which the Lieutenant-Governor has at his disposal for special Mahomedan education are—

	Rs.
(1) Grant to the Calcutta Madrissa and its attached schools, as per the Educational Budget of 1873-74 ...	38,000
(2) Mahomed Mohsin Educational Endowment, yielding per annum about ...	55,000
Total ...	93,000

From the sum available, as above-mentioned, must be met—

First,—The cost of the Hooghly Madrissa and boarding-house, and the difference between the full college or schools fees and those paid by Mahomedan scholars. The grant for the Hooghly Madrissa and boarding-house during the year 1873-74 is Rs. 5,000, besides scholarships; the Lieutenant-Governor would make it in future Rs. 7,000, in accordance with plans for other Madrissas to be presently stated.

Secondly,—The cost of the Calcutta Madrissa and Anglo-Persian Department and boarding-house, and of the Branch School at Collinga. The Lieutenant-Governor is satisfied that the Mahomedans of Bengal would wish the Calcutta Madrissa to be retained, whatever other Madrissas may be established. Excluding scholarships, the grant for the Calcutta Madrissa and its attendant institutions during the year 1873-74 was Rs. 34,500 gross, the fees being credited to Government. The new appointment of a Principal and Superintendent of Madrissas must considerably increase this charge; and the Lieutenant-Governor would, if necessary, assign Rs. 35,000 plus its fees, or about Rs. 40,000 in all, as the cost of this institution and its dependencies. The establishment of moulvies and teachers at the Calcutta Madrissa requires revision. The number of teachers seems too large, and the salaries of the junior teachers may be too small. For the 80 or 90 Arabic students there are seven moulvies besides the professor; while for the 320 boys in the Anglo-Persian Department there are 18 teachers besides the professor and the resident moonshee. The Director of Public Instruction will be instructed to submit an early report on these establishments.

There will remain Rs. 51,000 to be spent on Madrissas at Dacca, Chittagong, Rajshahye, or other places in the Mahomedan districts, on scholarships, and on other means of promoting the education of Mahomedans.

5. The Lieutenant-Governor proposes that the new Madrissas should consist of a boarding-house for Mahomedan students, a set of rooms for study, and a staff of Mahomedan officers (who should teach Arabic and Persian, and other branches not requiring a knowledge of English), as well as a master capable of acting as home tutor for English education. One at least of the teachers would have free quarters in the boarding-house, and would have charge of the boarders. The Madrissa would be attached to, and the board-

ing-house would be near, the college or high school, and Mahomedan boys of approved merit, who attended school or college, would have two-thirds of their school fees paid for them from the Madrassa funds.

6. Of all the eastern districts, Chittagong and Noacolly are those which have the largest population of Mahomedans of the class which seek education and send students to the Calcutta and Hooghly Madrissas. Rajshahye is centrally situated in a part of Bengal, nearly three-fourths of the inhabitants of which are Mahomedans. Dacca, on the other hand, is a still more important centre, and has also around it a very large Mahomedan population; and the Commissioner reported in 1871 that Khajeh Abdool Gunny, c.s.l., with many influential Mahomedans, wished to have an exclusively Mahomedan college established at Dacca, where it students might learn English or Arabic. The memorialists, it is observed, especially say that they do not require Bengali or Hindustani to be taught at this college, as their children learn these languages sufficiently well at home. The memorialists lay much stress on having a European gentleman, with some knowledge of Persian and Arabic, at the head of the Dacca Madrissa. The Commissioner reported in 1871 that a piece of land would be given for the site of a Madrissa at Dacca, and that eventually wealthy Mahomedans might probably come forward to endow such an institution.

7. If the Mahomedan gentlemen of Dacca should furnish the funds for a separate college of their own, every assistance shall be given to them, and the Mohsin Madrissa grant will be amalgamated with their funds. But putting this question apart, the Lieutenant-Governor's present view is, that it will be best to establish, in addition to the Hooghly Madrissa, Madrissas at Dacca, at Chittagong, and at Rajshahye, consisting of not less than the following:—

(a) A boarding-house with three or more school-rooms, and a decent house, after the native style, for the resident teacher.

(b) An establishment consisting of—

	Per annum. Rs.
Superintendent on Rs. 200, rising to Rs. 250	2,700
1st Teacher on Rs. 75, rising to Rs. 100	1,020
2nd ditto on „ 40, „ to „ 60	640
Contingencies and prizes, at Rs. 120 a month	1,440
Servants for boarding-house and grant-in-aid of boarders' messing, at Rs. 100	1,200
Total per annum	7,000

For Dacca a more highly-paid staff might be allowed, say a Superintendent on Rs. 350 per mensem, and annual net grant of Rs. 10,000. The Superintendent should be, if possible, a Mahomedan, who knows both English and either Arabic or Persian, and he should be competent to teach Mahomedan law. The Madrissa building should be as near as possible to the college or high school or zillah school buildings; boarders or other Mahomedan boys approved by the committee would be allowed to attend the English, law, survey, science, and other classes of the college or school on payment of one-third the usual fees, the other two-thirds being paid by the Mohsin Fund. Each Madrissa would be under the management of a special committee, or of a special sub-committee of the general District School Committee. Such committee or sub-committee should consist of Mahomedans and Europeans, and the Superintendent of the local Madrissa would be a member, and might be secretary. At Dacca and Hooghly the Principal of the college should be a member of the committee. The cost of the buildings, which should not be very expensive, would be met from the uninvested surplus of about Rs. 90,000 now in the hands of the Mohsin Fund trustees.

8. The Lieutenant-Governor would not at present lay down the course of study in Mahomedan literature, or Mahomedan law, which should be pursued at the Madrissas. He would leave details to be settled by the local Superintendents and the local committees under the general supervision of the

Superintendent of Madrissas. His view generally is, that we should teach at Madrissas such Persian and Arabic, and a reasonable amount of Mahomedan law and literature, as students may wish to learn, and that we should give special facilities to Madrissa students who may elect to take the ordinary English course of study, and to read physical science.

9. It has often been urged that the best Bengal Mahomedans are usually men of small means. The Lieutenant-Governor believes this to be true; and

Jessore.	Backergunge.
Rangpoor.	Mymensing.
Patna.	Tippurah.
Farruckpore.	Noanooly.
Sylhet.	

he would set aside a further sum of Rs. 7,200 to be allotted, at the rate of Rs. 800 a year, to each of the zillah schools marginally noted, for expenditure, partly in paying two-thirds of the school fees of

deserving Mahomedan boys who may attend regularly at these schools, and partly in bearing a share of the cost of a teacher of Arabic and Persian. The views of the Mahomedan members of the District School Committees should be allowed much weight in deciding how these grants are to be spent. A sum of Rs. 8,000 might be set aside to meet two-thirds of the college or school fees of deserving Madrissa students who may attend the Presidency, Hooghly, or Dacca Colleges, or the collegiate and other schools near which a Madrissa may be established.

10. There will remain a sum of Rs. 11,800 available for various expenses which may prove necessary, and especially for Mohsin scholarships. All scholarships now held at the Calcutta and Hooghly Madrissas will be continued to their holders. The number, amount, and duration of the scholarships can be settled as soon as the new Madrissas are established. But in the interest of all parties, the Lieutenant-Governor thinks that a large proportion of the sum available should be devoted to the encouragement of Mahomedan lads who learn English and succeed in English studies and physical science. In general terms, the Lieutenant-Governor would say that we ought to establish some Mohsin scholarships of Rs. 4 or Rs. 5 per mensem tenable at zillah schools; and some of Rs. 15, Rs. 20, and Rs. 25 per mensem tenable at ordinary or special colleges, or at the civil service classes. Perhaps it might be possible to have one Mohsin scholarship of Rs. 1,000 a year tenable in England by successful Mahomedan students of English.

11. The total annual cost of the above arrangements will be—

	Annual cost in Rs.
Calcutta Madrissa, &c.	35,000
Dacca Madrissa	10,000
Establishment and boarding-house of three Madrissas	21,000
Various further expenses, including scholarships	11,800
Assignment for Mahomedan education at nine zillah schools	7,200
Assignment to meet the cost of paying two-thirds fees of Madrissa boys who may attend at the Presidency, Hooghly, and Dacca Colleges or collegiate schools, or at the Rajshahye and Chittagong schools, or law classes	8,000
Total	93,000
Amount available as per paragraph 4 above	93,000

12. The Lieutenant-Governor hopes that Mahomedan gentlemen of wealth and liberality, of whom there are many in Eastern Bengal, will sooner or later come forward to endow scholarships or otherwise to support the new Madrissas which are to be established. The Commissioner of Dacca will be asked to communicate with the memorialists of 1871, and to ascertain how far they are willing to help. The funds at the Lieutenant-Governor's disposal do not permit of his providing a competent European Principal for the Dacca Madrissa; but if the memorialists still desire to have such an officer over the Dacca Madrissa, and see their way to guaranteeing an additional income of Rs. 6,000 per annum, the Lieutenant-Governor would hope to be able to meet their wishes.

13. The arrangements now proposed do not set aside any funds for aiding Mahomedan primary schools. The Lieutenant-Governor has much hope that the action taken by local officers under the primary school orders will result in our having Mahomedan scholars and teachers at a great many of

the primary schools in the eastern districts. If this should be so, if a large proportion of the school boys are Mahomedans, the Lieutenant-Governor would expect that in course of time district officers may be able to nominate Mahomedans to a share of the Deputy and Sub-Inspectorships in Mahomedan districts. At present hardly a single member of the inspecting staff in Bengal is a Mahomedan.

14. In pursuance of the policy that Government funds cannot be set aside for special sects, the Lieutenant-Governor has not proposed to set apart any of the grant-in-aid fund, or of the scholarship fund, or of the primary school grant, exclusively for Mahomedan education. The funds now granted for Mahomedan purposes come exclusively from the Mohsin foundation and from the grant made in the last century to the Calcutta Madrissa. The Lieutenant-Governor hopes and anticipates that before long Mahomedans may get their fair share of the general scholarships and other educational advantages granted by Government to the Mahomedan districts. He was glad to notice in the last Educational Report that Mahomedans are said to be creeping up to the top of the zillah schools in Eastern Bengal; he has recently heard that the head student of the Hooghly College at the recent B.A. examination was a Mahomedan; and he has just seen that a Mahomedan boy came out first at the open examination for patshala scholarships in the Pubna district.

15. As respects the kind of man required for the new Principalship of the Madrissa, the Lieutenant-Governor's views are expressed in the following extract:—

"His Honor would appoint as Principal of the Calcutta Madrissa and Superintendent of Madrissas in Bengal a European scholar on Rs. 1,000 per mensem, to be paid from the Mohsin Fund. To bring him into sympathy with the students, and to enable him to direct their studies, he should be a Persian and Arabic scholar, but His Honor does not propose that the teaching of those languages should be in any degree his chief function. It is much more important that he should be able to direct their education in European science and art, and to teach in the Calcutta Madrissa the most important branches. And most important of all, much more important than his being a mere oriental scholar, is that he should be a man fitted to lead, to influence, and to discipline youth—a man with the talent of a head-master of a public school, and a temper fitted to deal with and attach to him the natives of India."

16. The Commissioners of Dacca, Rajshahye, and Chittagong will be requested to appoint at once committees consisting of the Magistrate, the District Engineer, two or three educated Mahomedans, and a representative of the local college or school, to propose a scheme for buying or building, close to the school or college, a Madrissa containing three or more school-rooms, accommodation for not less than thirty boarders, and a house for the resident Superintendent. The outside cost of the whole should not exceed Rs. 25,000 for each Madrissa; the committee will best be able to decide what kind of buildings should be built or bought in each case. The Commissioners of these divisions may also take such steps as they may see fit, either by public meeting or otherwise, to interest the Mahomedan public in the movement.

TEHSILDAREE ESTABLISHMENTS FOR GOVERNMENT KHAS MEHALS.

No. 5166, dated Calcutta, the 6th December 1872

From—C. BERNARD, Esq., Officiating Secretary to the Government of Bengal, Revenue Department,

To—The Secretary to the Government of India in the Department of Agriculture, Revenue, and Commerce.

UNDER cover of my letter No. 5057, dated 2nd instant, was submitted the Board's, Commissioner's, and Settlement Officer's report upon the settlement of the Western Dooms of Bhootan. It will have been observed that the settlement has been made at revenue rates with the jotedars, some of whom are actual cultivators of the land; that in three of the less cultivated pergunnahs the business of collecting the revenue from the jotedars has been made over to farmers who have some old connection with the pergunnahs, at a commission of $17\frac{1}{2}$ per cent. on the total land revenue; but that over the other six pergunnahs it was proposed to collect the Government revenue (or rent, whichever it be called) from the jotedars through the agency of tehsildars, at a commission of 10 per cent. on the revenue. This was the system which had been hitherto in force in the Dooms; but the Lieutenant-Governor has preferred to substitute for tehsildars paid by a commission, and more or less uncontrolled by Government, a tehsildaree system more nearly approaching to the tehsildaree (mandaldaree or talookdaree) system of temporarily settled lands in other parts of India, and has directed the Board to submit proposals for giving effect to such a system.

2. The question how the Government revenue (or rent) was to be collected on temporarily settled lands where Government owns the land, or where it arranges directly with the occupiers, was settled in Assam by a decision that there should be a class of Government officers called mouzahdars, who should collect the revenue and manage the affairs of a mouzah, or tract of country paying about Rs. 5,000 of revenue (or rent); and as remuneration for the duty the mouzahdars were to be allowed a percentage of from 10 to 15 per cent. on the revenue they collect, and they are also allowed a very small establishment to help them. A somewhat similar arrangement exists in Chittagong, where estates are very many and very small, and where circle-farmers, as they are called, collect and pay into the Government treasury the revenue instalments of estate-holders.

In nearly the whole of Orissa, where the land revenue is temporarily settled, there are large proprietors who collect their rents and pay in the Government revenue without the intervention of any Government official or tehsildar between themselves and the treasury. But in the large Government estate of Khoordah in Pooree, it has been found necessary to attach a Deputy Collector to the sub-divisional officer for the mere purpose of doing the tehsildaree work of this tract, the ryots of which pay Rs. 1,50,000 into the treasury annually.

In the Palamow tract of the Lohardugga district, where the sub-divisional officer is in executive charge of more than 4,000 square miles of country, there is a considerable area of Government lands, the ryots of which have to be

* See letter No. 4450, dated 8th October, reporting upon the Palamow settlement.

managed; and the Lieutenant-Governor has, now that the settlement is over,* been obliged to sanction—temporarily, and subject to the orders of the Supreme Government on the general question—

■ Sub-Deputy on Rs. 150 ■ month to assist the sub-divisional officer in managing these lands. Similarly, for the Government deuralis, or lands thrown up by the river Ganges, in the Bhawalpore division, the Lieutenant-Governor has had to sanction temporarily two tehsildars, who shall manage the lands, collect the rents, and also conduct the re-settlement which is now pending.

In a recent case referred by the Commissioner of Cooch Behar, it was pointed out by the Board of Revenue that the Government of India had, in letter No. 483, dated 13th April 1841, invested Commissioners of divisions with

authority to pass charges for collection of the revenue in khas mehals (Government estates) not exceeding in the aggregate 10 per cent. on the total collections of the year. This permission has not been very generally acted upon, because the policy of the revenue authorities in Bengal has been to let Government estates to farmers for terms of years; these farmers were often Europeans, some of whom live at home in England. According to the rules and practice of the Board of Revenue, 10 per cent. on the aggregate rents or assessments of khas mehals has been allowed to such farmers to cover the costs and loss in collection, and a further sum, sometimes amounting to 10 per cent., is usually allowed as farmers' profits, besides profit from increase of cultivation, enhancement of rents, indigo cultivation, &c.

3. The Lieutenant-Governor does not wish to continue the system of farming all or most of the Government khas mehals, and thus completing the separation between Government officers in Bengal and the people who occupy and dwell on the land of Bengal districts. Some of the farmers are no doubt good men and do their duty, but they have little or no incentive to spend money on the land or improve the condition of the ryots. When a farmer gets large farms and makes a good income therefrom, he often becomes an absentee and leaves his farms to be managed by irresponsible agents. A farmer can be of very little assistance in executive or administrative matters; he is rarely fit to be a Magistrate on the lands he holds; he in no way represents the Government; he does not help the Government or its officers in gaining an insight into the state of the people, or of their agriculture, or of their wants; indeed, as his lease draws to a close, it must be the direct interest of a farmer to understate the yield and conceal the state of his farm, so that he may obtain a renewal of his lease on favourable terms. In fact, it has too often, the Lieutenant-Governor thinks, ended in repeated renewals and eventual permanent settlement with the original farmer, or his heirs or assignees: so that, in fact, a valuable landed property is given away at discretion. A tehsildar, on the other hand, with a small establishment, would be most useful in all these ways; it is not too much to say that in temporarily settled parts of India the tehsildars are the most important, most influential, and most respected class of native officials the Government has; and there is no reason why in course of time tehsildars on Government estates in Bengal should not occupy the same position as tehsildars in the North-Western Provinces, mamuldaris in Bombay, and talookdars in Madras. So far as the public treasury goes, the employment of tehsildars would certainly

* The word "pass" is used, but as a matter of fact these allowances do not usually pass through the public accounts at all; only the net revenue after the deduction of costs of collection and farmer's allowance is brought on the Government rent-roll, as will be seen from the appendices to the Blanton Downes Settlement Report.

be cheaper than the present arrangements, whereby, under the orders of 1841, Commissioners can pass* 10 per cent. as costs of collection; and than the farming arrangements whereby, under the Board's rules and practice, 10 per cent. as costs of collection and a further percentage as farmers' profits, with all subsequent increase, are allowed to lessees of Government estates.

4. Against any proposal thus to have tehsildar establishments on Government khas mehals, there may be the objection that it is undesirable to multiply Government establishments with their claim to pension; that in every case of the kind special recommendations will have to be made to the Government of India; and that the old system has always worked well enough. In regard to the third objection, I am to submit that the old system was costly, in that it gave up large lump sums as commission to farmers, and that it answered no other purpose of Government except the mere collection of revenue. The ryots also were not protected, and the farmer had every possible interest to enhance their rents or make them grow indigo. This farming system is identical with the old system which was abandoned in other parts of India directly land revenue settlements and the record of landed rights were regularly taken in hand. To meet the other objection, the Lieutenant-Governor would suggest that these tehsildar establishments be recognised as *provincial* establishments, and that the Supreme Government be pleased to allow the local Government to appropriate, subject to report on each case, a fixed percentage of the land revenue assessed on Government khas mehals and ryotwara districts to the

support of tehsildar and subordinate administrative establishments. The percentage would not be allowed on tracts where there are superior proprietors with recognised rights; and it should be made to cover all costs for commission to village headmen (*tumbardars* as they are called in the North-West Provinces, and *munduls*, *pradhans*, *marlabars*, *manjers*, *gondears*, as they are called in different parts of Bengal). If the percentage were allowed, then the Lieutenant-Governor would attempt to work the grant and its establishments into the scheme for sub-divisional executive establishments, to which the Government of India has been pleased to give a partial and provisional sanction in Home Department letter No. 3904, dated 10th October 1872.

5. The percentage for which the Lieutenant-Governor would ask would be 10 per cent. on the full assessment on the ryots. He would anticipate that about 4 per cent. of this would go to the village headman, while 6 per cent. might be spent on tehsildar establishments. This percentage would certainly not cover the costs of collection in smaller estates, but it would cover the collection charge in large estates, and would enable the local Government to strengthen the sub-divisional establishments in places where there were many small Government estates to be managed. If the Government of India were pleased to agree in this view, full report would, in the case of each settlement, be made regarding the percentage to be allowed and the purpose to which it should be devoted.

6. I am to summarise the points which have been submitted in this letter thus:—

- (1) It has been the custom in Bengal to lease temporarily settled Government estates to farmers, or to make over their collection to tehsildars, at a commission ranging from 10 to 20 per cent. on the revenue assessed upon the occupiers whose rents they were also permitted to enhance and increase for their own profit.
- (2) The system is not in the long run a good one, for it separates the people from the Government officers, and makes over the ryots to speculators or persons who have no interest in the improvement of the ryots.
- (3) The tehsildar system of other parts of India could be introduced with advantage to Government, to the ryots, and with economy to the State.
- (4) The best way of doing this will be to recognise these tehsildar establishments as *provincial*, and to make over to the local Government, after full report in each case, 10 per cent. on the gross assessment on the ryots, to be spent on tehsildar and executive establishments, in connection with the scheme for sub-divisional establishments.

No. 571, dated Simla, the 11th July 1873.

Memo. by—C. J. LYALL, Esq., Offg. Under-Secy. to the Govt. of India, Department of Agriculture, Revenue, and Commerce.

Corr forwarded to the Government of Bengal, with reference to its letter No. 5166, dated 6th December 1872, and with a request that the Government of India may be furnished with the tabular statement referred to in paragraph 3 of the Financial Resolution dated 30th ultimo.

No. 1350.

GOVERNMENT OF INDIA.

FINANCIAL DEPARTMENT.

Simla, the 30th June 1873.

READ the undermentioned papers relating to a proposal to substitute a paid agency for farmers of revenue in the temporarily-settled Government estates in Bengal:—

Paragraph 11 of the observations contained in Financial Resolution No. 652, dated 27th May 1873.

Letter from Government of Bengal to the Department of Agriculture, Revenue, and Commerce, No. 5166, dated 6th December 1872.

The Government of Bengal proposes to introduce the *tehsildaree* system, which obtains in other parts of India for the collection of revenue, in such temporarily-settled Government estates in Bengal as are at present either leased to farmers, or in which the duty of collecting the revenue is made over to *tehsildars* at a commission ranging from 10 to 20 per cent. deducted from the gross revenue paid by the occupiers; and with a view to carry out the proposal, the Government of Bengal requests that 10 per cent. of the gross assessment on the ryots may be allowed to be spent on the required *tehsildaree* establishments, they being recognised at the same time as provincial establishments.

2. The Governor-General in Council has already approved of the introduction of a paid agency, similar to that which is found by experience in other parts of India to be the best suited for the management of temporarily-settled districts, and is prepared to consider favorably proposals for an establishment of *tehsildars* and for allowances to headmen in that class of Government estates in which a percentage has hitherto been allowed to farmers for management, provided the net revenue of such estates exceeds Rs. 1,000 a year, and provided the future expenditure on such establishments will not exceed in the aggregate 10 per cent. of the gross revenue collections.

3. In order, however, to ascertain the financial results of the proposed arrangements, His Excellency in Council desires that a detailed tabular statement may be submitted, shewing for each estate to which the new scheme is to be applied, the establishments to be entertained, and the revenue which it will have to collect, as also the gross and net receipts, so far as may be possible, under the farming system.

4. His Excellency in Council observes that no deduction can be permitted from the gross revenue to form a fund or to be added to the provincial assignment. The proposed *tehsildaree* establishments should be treated as ordinary imperial revenue establishments.

5. It is to be clearly understood that nothing in this resolution applies to the case of any estate not yielding more than Rs. 1,000 a year net revenue. A special addition has been made to the provincial assignment by resolution No. 2368, dated 10th April 1873, to cover the cost of collecting the revenue in such estates, and no further charge in respect to these small estates can now be admitted into the imperial accounts.

ORDER.—Ordered that a copy of the foregoing resolution be communicated to the Department of Agriculture, Revenue, and Commerce, for information and further orders; and to the Accountant-General, Bengal, for information and guidance.

R. B. CHAPMAN,
Secretary to the Govt. of India.

ACCOUNTS OF CHITTAGONG PORT FUND FOR THE YEAR 1872-73.

The following statement of the accounts of this port for the past year is published for general information:—

	Rs.	As.	P.		Rs.	As.	P.		Rs.	As.	P.		Rs.	As.	P.
Balance at close of 1871-72	37,280	15	3					Port establishment	5,195	7	3				
Money invested in promissory notes	37,800	0	0					Contingencies	2,700	10	0				
				55,080	15	3		Cost of stationery	21	7	2				
Port dues collected during the year	28,086	3	0					Public works charges	1,891	12	0				
Muhakhal toll collections during the year	411	4	8					Unpaid charges not placed in 1871-72	122	0	0				
Sale of charts	15	0	0					Pension to late head clerk, Port Office	108	10	0				
Fines realized on account of breach of port rules	314	0	4									5,114	13	8	
Stores returned to Unkulia	210	0	0					Refund of interest over-estimated on Bank's account	311	15	6				
Interest on Government securities	1,598	0	6												
				1,321	0	6		Balance at close of 1872-73	56,491	2	4				
								Money invested in promissory notes	27,800	0	0				
												82,804	2	4	
Rupees				96,158	0	9		Rupees				96,152	0	9	

EPIDEMIC FEVER IN MIDNAPORE.

No. 257, dated Burdwan, the 28th May 1873.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,
To—The Secretary to the Government of Bengal, Judicial Department.

WITH reference to your No. 5420 of 7th December, I have the honor to submit in original a report, No. 116, dated 9th instant, with its enclosure, from the Magistrate of Midnapore, regarding the prevalence of the epidemic fever in parts of the district of Midnapore. The enclosure is a map, which is well coloured, so as to show the different characters of the soil in different parts of the district, and to denote those parts to which the fever has extended its ravages.

2. Mr. Harrison's interesting report is so lengthy, and has been so long delayed, that I am unwilling to detain it, or to add to it unnecessarily. Mr. Harrison apologizes for the delay which has occurred, and attributes it chiefly to the late receipt of the report of Dr. Mathew, the Civil Surgeon, which he has now extensively incorporated in his letter. Dr. Mathew has entered at great length, and with much ability, into the history of the fever and its treatment, and other professional points, which will doubtless be duly considered by the higher authorities in the Medical Department.

3. I have several times visited all that part of Midnapore where the fever has broken out. Mr. Harrison has well described the characteristic features of this tract, which are in some degree referable to the great lines

of Government embankments which run along the sides of the Selye and Cossye rivers. It must, however, be remembered that these Government embankments are an inheritance which the British Government received from its Hindoo and Mogul predecessors. Long before the British rule was extended to India these embankments were constructed, and gradually raised to a height which must have affected the level and drainage of the adjacent country. Under the British Government the engineers have endeavoured to strengthen and solidify these embankments, and to provide them with sluices, which however apparently seem still to be much in need of improvement. It must be also remembered that these embankments were in existence for more than a century before the first visitation of the epidemic fever to this part of the country.

4. In the fever-stricken villages of Midnapore, such as Ghatal, Nemtolab, and the outskirts of Dasspore, which I visited this year, the people and their surrounding circumstances are as similar as possible to what I have so often seen in the fever-stricken villages of Hooghly and Burdwan during the last four years. Dr. Mathew has described in forcible language the filthy and unwholesome state of these villages, in which the stench is so disgustingly offensive, that the natives who live there and are insensible to it, must have their senses differently constituted from mine. When the people saw me in the villages they came flocking for help, and insisted on taking me to their houses to see their sick women and their afflicted children, and with a great desire that the latter might be touched, as if there might be some virtue in a touch. Although I usually took a Native Doctor with me with suitable medicines, the villagers were very anxious for my manipulation of their spleens, and for my advice, which I am glad to find was given correctly to the convalescents (to whom I tried to limit my practice), as I prescribed a milk diet, of which Dr. Mathew approves.

5. I regret to say that some of the Native Doctors, far removed from supervision, do not behave very creditably; but, as we have no one to substitute for these Native Doctors, we can only make the best of them. Dr. Mathew has reported correctly that I found it necessary to send out a head constable of police in charge of the Native Doctor at Ghatal, to see that he attended properly to the sick poor and did not attempt to take fees from them. The head constable was instructed to send to me special reports twice a week of his expeditions in charge of the Native Doctor, who, when thus strictly looked after, did some better service.

6. From the statement appended to the Magistrate's letter, it appears that from October 1872 to 31st March 1873, 24,007 persons were treated for fever, and only 236 died. I am afraid that these figures do not nearly represent the truth. Along the banks of the rivers, and on the edges of the villages, there were signs of many more funeral obsequies. But whatever the past may have been, it is for the future that provision must now be made, as there is too much reason to apprehend that the fever will make its re-appearance this year on the setting in of the rains.

7. The Magistrate and the Civil Surgeon have suggested that certain medical establishments should be placed at their disposal, but without criticising their proposals at present, I beg to suggest that it is for the Medical Department to give its opinion as to the necessity for employing them, and as to its ability to provide these establishments. I trust that even if only two or three Native Doctors are sent down to the fever tracts of Midnapore, as occasion requires, a special supervising officer, not below the rank of a Sub-Assistant Surgeon, may be deputed to Ghatal to look after them,

and to see that they do their duty, and that they are well supplied with quinine and other medicines. I agree with Mr. Harrison that where the villagers agree to pay half the Native Doctor's salary, they should have a prior claim to the appointment of a Native Doctor.

8. If the Medical authorities do not object, I would recommend Mr. Harrison's proposals Nos. 4 to 8 to the favorable consideration of Government. The more co-operation that can be secured, the greater prospect there is of effective resistance being shown to the fever. A few pounds of quinine may be misused or made away with, but, on the other hand, many lives may be saved by its timely and fortunate use even in unskilled hands.

9. I regret to observe that Mr. Harrison, in his paragraph 36, is opposed to the compulsory clearance of jungle or tanks. I had understood that the districts of Kishnaghur and Baraset had obtained a comparative immunity from fever by the enforcement of sanitary measures of this description. When it is a question of life or death, the consideration of the public good should prevail over private interests. It is not possible that a native of this country should be more attached to his filthy tank and sweltering jungle than an English farmer is to his reeking dunghill or his midden; but the farmer has been taught that he must yield to the public good when the spread of typhus fever, or an alarm of cholera, occasionally arouses the British community to the necessity of enforcing the sanitary laws which happily exist, although they too often and too long lie dormant, in England.

10. Finally, I beg to invite the attention of Government to the favorable notice made by Mr. Harrison in paragraph 37 of the conduct of Rajah Jotendro Mohun Tagore, Baboo Ajoodhya Ram Khan, Baboo Lall Behary Dutt, and Baboo Janokee Nath Mookerjee.

No. 116, dated Midnapore, the 9th May 1873.

From—H. L. HARRISON, Esq., Magistrate of Midnapore,
To—The Commissioner of the Burdwan Division.

I HAVE the honor to forward herewith the report on epidemic fever in Midnapore called for in your letter No. 707 of the 20th December.

2. The delay in its transmission is due to the fact that Dr. Mathew's report, on which it of course in great measure depends, was only received by me on the 21st April. As the whole of his report ought, I think, to be laid before you, and as it is fatiguing to travel twice over the same ground, I have, instead of sending a separate report, incorporated his integrally in this letter. I have in all cases made it apparent what paragraphs are his, so that he may not be held responsible for any opinions not his own.

3. My report has also been delayed by the necessity of preparing another map,—partly because I want to illustrate in it the physical divisions of the district stated below, partly because the map which Dr. Mathew was so good as to provide was so encumbered with names not needed for this report, and with separate colours for separate thannahs, that it could not be utilized to convey a clear impression of the sanitary features of the district.

4. To understand precisely the circumstances of the affected area, (1) its physical characteristics and (2) the comparative density of the population should be clearly realized. The first characteristic feature of the district is the laterite soil extending over the north-west and north of the district; this is of course the highest land, and as the country there almost uniformly consists of alternate ridges and depressions, the drainage is complete.

5. From this table-land, however, the district by no means slopes away regularly towards the south or south-east, as might be expected. Headed by the laterite near Midnapore town, a valley starts in an eastern or even north-eastern direction towards the Roopnarayan river above Koilah Ghât, which at its eastern end embraces, relatively to the surrounding drainage, the lowest land in the district, and almost absolutely the lowest.

6. It has long since been pointed out that owing to the embanking system, the rivers, when they once got into the low level plains of the delta, are no longer the depressions, but the elevations, of the country: hence it is the simple truth to say that this valley is bounded by the range of the Cossye river on the south, and that of the Selye on the north. A little above Panchkoorah the Cossye, as is well known, was diverted some hundred years or more ago from its proper course, and carried southwards along what the people still call the *Aya Kuttan*, or new cut, by which it makes its way into the Huldee. Were it allowed to pursue the natural course which the levels of the country indicate, it would continue to be the boundary to this valley till it fell into the Roopnarayan above Koilah Ghât.

7. Almost opposite to this southward deflection of the Cossye the Selye turns in a north-western direction, and thus the valley opens out on both sides, embracing the whole of Pergunnah Chetooa (which is identical with Thannah Dasspore) on the north, and almost the whole of Pergunnah Kassijora to the south.

8. Even here, however, singular as it may seem, the slope is rather towards the north-east than to the south-east; this will be understood in a moment from the single fact that the tides reach above Ghatal on the Selye, while they do not reach Panchkoorah on the Cossye.

9. It naturally follows that in the rains this valley becomes more or less a lagoon. Even at the longitude of Nowadah it has been found impossible to maintain a road across to the Selye or to Ghatal, important as such a road would be; while a little lower down, *i.e.* further east, notably in Pergunnah Chetooa and round Ghatal itself, the people do not look to the autumn for their crop, but have introduced a vast system of irrigation in the cold weather, which is only feasible on account of the extreme depression of their country.

10. Though the species of valley described is immediately bounded by the embankments of the Selye and Cossye, the general depression passes beyond these rivers and is found again on the other side. This is most conspicuously the case with the Selye, which forms a loop, the southernmost point of which is a mile north of Narajole. Within this loop the country lies very low up to the latitude of Keerpoy; while south of Nowadah the low-lying country extends along the line of the Kerai (a drainage khall over which the high level canal is carried by an aqueduct) down to Pinglah, and southwards till it mingles with the saline tract.

11. Dividing the district, as it may not inaccurately be divided, into (1) laterite, (2) alluvial but littoral and saliferous, (3) alluvial and non-littoral, the latter may be regarded as forming a rough triangle the base of which is the Roopnarayan from Tumlook to Ghatal, and the apex the town of Midnapore—or, more accurately, a point some six miles south-west of it.

12. I next propose to show how the population of the district is distributed over these three areas.

The laterite thannahs are—

	Area.	Population.	Per square mile.
Becupore	467	74,271	159
Jhargram	169	45,560	269
Gopiballabpore	516	120,310	232
Gurbettah	437	145,264	332
Salboucy	207	50,860	245

<i>Border thannahs, i.e. laterite alluvial.</i>							
Midnapore	..	..	..	..	361	172,672	478
Keshpore	..	..	..	..	229	108,929	476
<i>Laterite littoral.</i>							
Naraingurh	..	..	..	..	300	129,553	432
<i>Littoral.</i>							
Dantoor	..	..	..	..	217	112,372	518
Roghoonathpore	..	..	..	..	126	51,579	433
Contai	..	..	..	..	226	122,857	544
Egrah	..	..	..	..	122	57,898	475
Puttasporc	..	..	..	..	117	81,123	693
Bhugwanpore	..	..	..	..	184	89,812	488
Kedgerce	..	..	..	..	75	36,003	480
Nundigram	..	..	..	..	158	108,827	689
Sottahatta	..	..	..	..	111	53,546	482
Muslundpore	..	..	..	..	111	61,188	578
<i>Littoral alluvial.</i>							
Subhong	..	..	..	..	283	214,755	759
Tumlook	..	..	..	..	77	77,341	1,004
<i>Alluvial.</i>							
Chunderkonah, three-fourths alluvial	..	..	..	..	121	106,480	880
Ghattal	..	..	..	..	91	102,743	1,129
Dasspore	..	..	..	..	104	136,359	1,311
Debra	..	..	..	..	109	110,747	1,016
Panchkoorah	..	..	..	..	164	163,915	999

13. The above figures show conclusively that the density of the population closely follows the character of the soil. The purely laterite thannahs have a population varying from 159 to 332 per square mile, the purely littoral from 433 to 693, the purely alluvial from 880 to 1,311; this last being Dasspore, which, as already explained, is the pit of the alluvial section, while 880 is Chunderkonah, the northern portion of which is high ground branching off from the laterite and somewhat undulating, though not jungly or stony.

14. The mixed thannahs strictly conform to the same rule, the laterite littoral showing an average population of 432 to the square mile, laterite alluvial of 477, littoral alluvial of 810.

15. Generally, therefore, the district may be classified into—

- (1) Laterite, with an area of 2,200 square miles and a population of 250 to the square mile.
- (2) Littoral, with an area of somewhat under 2,000 square miles and a population of 550 to the square mile, under which head I include all lands within 40 miles of the sea dyke.
- (3) Alluvial, with an area of 1,000 square miles and a population of 1,150 to the square mile.

16. It is only into a portion—but the most alluvial and the most densely-populated portion—of this latter section that the fever has yet spread; and if Dr. Mathew's account* of its progress is carefully examined in the map, it will, I think, appear that though in many respects capricious in its action, it has not yet passed into any other tract, while it has deflected from its more natural

line of progression from Hooghly and Jehanabad westwards, and chosen a southerly and south-westerly direction, preferring the alluvial soil, and more particularly the depressed valley in the centre of it.

17. It only remains to say that from the Cossye, as from a high level canal, natural channels, acting as distributaries, thread this valley between the two rivers; some of them joining the branches of the Solye, others serving as the streams for irrigating Dasspore in the cold weather. It has been frequently reported to Government on the irrigation side that in the cold weather the main branch of the Cossye is dammed up by a bund at Kapasdigree, in accordance with a prescriptive right of the zemindars, so as to conduct the water into these channels.

18. The natural drainage of this valley is north into the Solye through sluices, which, as Dr. Mathew states, are very defective, and west into the Roopnarayan, also through sluices, *not* south into the Cossye.

19. With this preliminary description of the character of the soil and population, I now extract Dr. Mathew's account of the premonitory threatenings of the epidemic previous to 1872.

(1.) "Before proceeding to describe the outbreak of epidemic fever that Previous sanitary history of the "has taken place in certain quarters of this district affected tract. "during the past year, I purpose to briefly allude "to the health of the zillah, with reference to the prevalence of fever, during the "period over which my residence extends.

(2.) "Shortly after my arrival here in August 1869, I heard that a fever, "closely resembling the epidemic which during that season was causing "terrible loss of life in Burdwan, had made its appearance along the line of "country lying between Chunderkonah and Ghatal (at that time a portion of "the Hooghly district), but the disease spread no further during that season, "and the health of that portion of the Midnapore district bordering on the "above-mentioned line of country was very fair during the autumn and cold "season of 1869.

(3.) "During the months of August, September, and October 1870, "malarial fever was widely spread over the alluvial tracts of Midnapore. The "country bordering on Hooghly suffered in common with other localities, such "as Tumlook and the country forming the sea-board.

(4.) "I visited Tumlook and the surrounding villages in the October of "that year, and found that the disease was nothing beyond an aggravation of "the fever usually attendant on the rainy season. It caused little or no "mortality, although numbers of those attacked suffered from enlargement of "the spleen and the other sequelæ of intermittent fever.

(5.) "On my return from Tumlook the police reported that fever was "very prevalent and fatal at Gurbettah and in the low-lying quarters of "Bogree Pergumnah; and, dreading that the epidemic fever which had just then "broken out at Jehanabad had advanced to Midnapore, I proceeded at once to "Gurbettah, and after visiting several large villages in Bogree, I travelled to "Ghatal *via* Chunderkonah and Keerpoy.

(6.) "During the trip I saw many scattered cases of fever; but the type "of the disease differed in no perceptible way from the disease I had seen at "Tumlook, and I accordingly reported to the Magistrate that there were no "grounds for the alarming reports that had reached him regarding the state "of the public health; and as the cold season advanced, those who had been "attacked regained their usual health.

(7.) "No more was heard of the disease until October 1871, the police "then reporting that fever had broken out and was causing many deaths at a "place called Nowadah, a large village on the southern bank of the Cossye "river, about 18 miles to the east of the sudder station.

(8.) "I visited the place early in November, and found that a fatal type of "intermittent and remittent fever had broken out some two months before, "and that out of a population of about 4,000 some 70 deaths had taken place.

(9.) "The surrounding villages, although subject to the same general "insanitary influences, were comparatively healthy, although I now believe

"that the disease was more widely spread and fatal during the latter months of 1871 than was suspected at the time.

(10.) "I found two Native Doctors in practice in the place. They stated that the disease was at its height during the latter part of September and the first three weeks of October.

(11.) "They had seen several cases of malignant remittent fever, but this was during the first outbreak; the type of the disease subsequently changing to the intermittent with the usual sequelæ.

(12.) "During the months of November and December the health of the people improved; and when I visited the place early in the following January, I found that no deaths from either fever or its results had taken place for several weeks, and that the people had lost in a great measure that unhealthy and anæmic appearance which had characterized them two months before.

(13.) "Scattered cases of fever had occurred in the surrounding villages, and I was inclined at the time to believe that their immunity from anything like an epidemic invasion was due to the fact of their having a better water-supply from the adjacent river than the people of Nowadah, who used for drinking purposes the water of the filthy village tanks. A subsequent paragraph will, however, tend to show how untenable the theory of the fever-producing power of impure water was in this particular instance.

(14.) "About the end of November 1871 again the police reported that fever had broken out along the line of country bordering on Hooghly, and that it was raging with particular severity at Dasspore and the adjacent villages.

(15.) "I arrived at the Dasspore Thannah on the 3rd of December. I found that malarial fever had been prevalent for the last two months, that numerous deaths had taken place both in Dasspore and surrounding villages, and the people one and all declared that the sickness and mortality was far in excess of anything of which there was any record.

(16.) "During that trip I visited six large villages in Pergunnah Dasspore, and I afterwards proceeded along the Selye river to Ghatal.

(17.) "From inquiries instituted there and in the villages surrounding, I came to the conclusion that the epidemic fever which had prevailed at Jehanabad had advanced to the villages surrounding Ghatal, and was from thence spreading along the river-banks to Dasspore.

(18.) "I was greatly struck on this occasion by the unequal incidence of the disease,—not only in different villages, but in different houses in the same village; some households suffering severely, while others, as far as could be judged, under precisely the same circumstances, escaped altogether.

(19.) "It is noteworthy that during the autumn of 1871 Tumlook Pergunnah and that quarter of the district forming the sea-board was remarkably free from all forms of malarial disease, and the same remark applies to the laterite country, which may be said to form roughly about one-third of the area of the entire district."

20. It will appear from the foregoing account that the fever at first made a sort of attempt, such as it still continues to make, to extend in the natural direction westwards to Keerpoy, Chunderkonah, and Gurbettah,—the former alluvial, though high alluvial; the second on the edge of the laterite, though itself on alluvial soil; and the third in the middle of the laterite, though low-lying and surrounded by cultivation,—but that it failed to take any serious hold of those places, and then struck southwards into the low-lying, densely-populated tracts of Dasspore.

21. Dr. Mathew thus continues the narrative for the year 1872 :—

History for 1872.

(20.) "I now proceed to describe the outbreak of epidemic fever of the autumn of 1872.

(21.) "During the first week in September the police reported that fever had become very prevalent and fatal at Narajole and in several of the adjacent villages.

(22.) "A glance at the accompanying maps shows the situation of Narajole on the banks of a narrow stream which connects the Selye and Cossye

"rivers. On the southern bank of this stream are situated the large and scattered villages of Bowancepore, Herratollah, Patna, Singaghur, &c., and still further to the southward lies the large porgunnah of Sharpore; and attention is directed to these localities, as it was there the disease raged in a very deadly form from the very first. There are grounds for the belief that the disease had been very prevalent during the months of August, and

N.B.—The general prevalence of dengue fever much impeded in getting correct information, as all the fever-stricken places at first believed they were visited by dengue.

"that it was not until many deaths had taken place that the attention of the authorities was directed to the matter, or indeed that of the people residing in the locality.

(23.) "Before the end of October reports were received from the police that malarial fever was rife and fatal within the jurisdictions of the Chunder-konah, Ghatal, Debra, and Dasspore police stations. Within the jurisdiction of the latter is the town of Narajole and the villages above alluded to.

(24.) "It will be thus observed, on referring to the map, that a considerable tract of country was under the influence of the epidemic, but the incidence of the disease was irregular both as regards its prevalence and fatality.

(25.) "As a rule, the villages in which the greatest mortality took place were those where the diseases prevailed during the previous years, i.e. the villages surrounding Ghatal, Dasspore, and its vicinity.

(26.) "An exception to this, however, is to be found in those villages near Narajole where, as before mentioned, the disease was more prevalent and deadly than in any other quarter of the district, and yet there is no evidence to show that there was any unusual prevalence of sickness in these places during the year 1871.

(27.) "It will be observed that the villages of Bowancepore, Herratollah, &c., are separated from Narajole town and bazar by a narrow stream. There was no very marked difference in the sanitary condition of those places. Perhaps if anything Narajole is less lumbered by jungle and the houses less crowded, yet the difference in the incidence of the disease is very marked.

(28.) "On the 7th of November 1872 I visited 22 houses in the village of Bowancepore; two months previous to my visit they were occupied by 164 people, and of those 90 were ill at the time of my visit and 41 had died. In Narajole I visited 69 houses, and found they were occupied by 325 people, and of these 132 were ill and only 12 had died.

(29.) "Many other instances could be cited tending to show how eccentric the disease has been in its progress, and I will allude to one other.

(30.) "It will be remembered that the village of Nowadah suffered severely in 1871, and that during that season the smaller villages in its vicinity, on both banks of the Cossye river, suffered hardly at all; yet during the past season there was little or no sickness in Nowadah, but the surrounding villages had a severe visitation of fever.

(31.) "It is to be hoped that they may escape next year, and that the fever from which they suffered this year was only an aggravation of the disease usually attendant on the rainy season; but the persistence of the disease during the cold weather months, and the high rate of mortality, are suspicious; and, moreover, they lie in the track along which the disease appears to be advancing.

(32.) "It is a matter of no small difficulty to distinguish between the epidemic fever in the early periods of its invasion and the aggravated malarial fever which now and then attacks particular villages, and which seems to depend on local sanitary influences.

(33.) "The inhabitants of a large village named Pingelah were very much alarmed during the past season on account of the prevalence of fever. It is situated some eight miles to the southward of Debra, and is within the jurisdiction of the Subhong Thannah. I visited the place early in December, and carefully inspected the village.

(34.) "The country between it and Debra seemed fairly healthy, yet on my arrival at Pingelah I found that the people had been suffering much. I

" saw many cases of fever, and some deaths had taken place; but even then
 " the worst was over, and before the end of December the health of the people
 " had much improved, the very time when the mortality in the epidemic-
 " stricken quarters was at its height.

(35.) " Ordinary malarial fever was widely spread over the district
 " during the past season. The localities where it most prevailed will be seen
 " by a reference to the map. The quarters of the district where there was no
 " unusual prevalence of malarial disease is the laterite country and the country
 " forming the sea-board.

(36.) " Tumlook, long regarded as the most unhealthy quarters of the
 " district, was again healthy during the past season; and there is a popular
 " saying amongst the natives, and on the whole a true one, that the only
 " quarters of the district that escaped fever during the past season, were those
 " where the soil is laterite and where the water is brackish."

22. Dr. Mathew's remarks, and still more his facts, so strongly support
 the position I have taken up, that the fever manifests a marked preference for,
 if it does not restrict itself to, low-lying non-littoral alluvial country, that it
 is but right to mention that he drew up his report without any consultation
 with me on this point, and was quite unaware of the special line of argument
 which I have followed.

23. My own observation of the course of the fever entirely supports what
 the Civil Surgeon has written, and it will be observed that it again failed to
 make serious progress towards Chunderkonah. This is the more remarkable
 because, as far as population alone is concerned, Keerpoy and Chunderkonah
 probably surpass any part of the district, except the sadder station of Midna-
 pore, in density of population. Keerpoy, owing to the artificial arrangements of
 the chowkeydaroo unions in its neighbourhood, is split into sections, and
 therefore does not figure high in the census; but the villages grouped round
 Chunderkonah form the second largest town in the district with an aggregate
 population of 22,000; and, so far as this cause and insanitation are concerned, it
 should have readily yielded to the fever. It escaped, however, as did Keerpoy,
 with a moderate attack somewhat in excess of the ordinary malaria of the
 season, while the severe mortality, the traces of which struck one so painfully
 in passing through Dasspore and Narajole, was fortunately absent.

24. I am far from saying that Keerpoy and Chunderkonah will escape;
 they are only on relatively high ground, not on the laterite, and I fear that the
 fever showed some slight tendency to gain ground in 1873. All I contend for is
 that the epidemic seems to have experienced a marked check in this quarter,
 while it poured on in an unrestrained stream through Dasspore towards
 pergunnahs Narajole and Shahpore.

Dr. Mathew continues—

(37.) " The physical aspect of the country where the epidemic fever
 " prevailed presents no features that call for very
 " special mention.

(38.) " The affected line of country may be briefly described as a flat
 " alluvial plain, formed of the combined deltas of the Cossye and Seiyé rivers,
 " and intersected by numerous khalls, all of which are embanked. Connecting
 " these rivers is the stream on which the town of Narajole stands, and to which
 " allusion has already been made."

25. As the earlier portion of this report shows, I cannot agree with
 Dr. Mathew in his estimate of the non-peculiarity of the physical features of
 the affected tract. I think the north-east slope of the country, and the very
 low level of Ghatal and Dasspore, as illustrated by the height of the tides,
 well worthy of careful attention; but I need not again revert to the subject.

He continues—

(39.) " During the rainy season the country is under rice cultivation and
 " is protected from inundation by a complicated
 " system of embankments or bunds.

(40.) " These bunds are a characteristic feature of this part of the country,
 " forming in many places the only high roads, and are no doubt of immense
 " importance. I now allude to what are known as the Government embank-
 " ments which follow the courses of the principal rivers.

(41.) "In addition to these are another series of ombankments known as the zemindary bunds, and with reference to the utility of these structures some doubts in many instances seem to exist.

(42.) "It would appear that in former years each landholder made such arrangements for protecting his land from inundation as seemed to him most suitable, and running in almost every direction. These bunds certainly act as potent obstructors of the natural drainage of the country, and it is the opinion of the engineer in charge of the irrigation works in this district that many of them might be removed with considerable advantage.

(43.) "The Government ombankments no doubt control the floods, and their utility, as far as I know, has never been questioned; but there can be very little doubt that they also obstruct the drainage of the country, and that to a very serious extent.

(44.) "The sluicing arrangements are lamentably deficient, and only allow surface water to flow off. They are much too few in number, and are, moreover, faulty in construction; their floors are in many instances above the level of the country, so that their utility for drainage purposes may well be questioned.

(45.) "I am given to understand that estimates for repairing and constructing no less than 60 sluices on one ombankment alone have been prepared; and with a system of bunds that stand in need of such all-important alterations, I think it may be assumed that the surface drainage of the country is obstructed and the subsoil water-logged.

(46.) "The land lying between the ombankment and the river-banks is considerably higher than the country surrounding, and the deposition of silt in seasons of flood is, I suppose, the chief cause of this. In many parts of the district the mulberry is extensively cultivated along the river-banks, and, owing to the fertilizing influences of the river, thrives well."

26. To the above description I have little to add and nothing to find fault with, unless it be the tenderness with which the Government ombankments are treated. The river-beds having been raised by the constant deposit of silt, to abandon these ombankments now would no doubt involve enormous tracts in total ruin; but it was this system of embanking which has deprived the country of its natural increment of deposit and kept it permanently depressed, while its drainage channels have gradually become irrigation channels, its waterways choked up, and the whole area water-logged.

27. As regards the state of villages Dr. Mathew writes:—

(47.) "With the exception of some scattered mango topes, there is nothing like forest land in the affected quarters of the district, and but little
State of villages. "jungle except in the immediate neighbourhood
"of the villages, which are surrounded by bamboo, plantain trees, &c., and during the rainy season there is in addition a considerable quantity of useless undergrowth.

(48.) "The sanitary condition of the villages, it is needless to say, is deplorably bad in every respect. Buried in jungle, studded with filthy tanks, houses crowded together and surrounded by all kinds of filth, are the most common characteristics of the villages of the district.

(49.) "The water-supply is contaminated and the atmosphere laden with the gaseous products of rotting vegetation and the excreta of the inhabitants. This description applies with equal truth to villages where the fever manifested itself in its most fatal form, and where scarcely a case occurred. Every village that I have ever visited is pervaded by odours more or less offensive.

(50.) "Utterly regardless of every law that conduces to health, the villagers remain on year after year surrounded by all those oft-described sources of nuisance with which we are only too familiar: and that the people not only live in such places, but increase and multiply into the bargain, is a pretty clear proof that stench *per se* will not cause disease, and that its deleterious effects on health bear no proportion to its offensiveness.

People and occupation.

(51.) "With reference to the people and their circumstances, I have not much to remark.

(52.) "Comparatively they are fairly housed, particularly in the larger villages.

(53.) "The better class of habitations are well raised, usually some three feet. The arrangement usually seen is a central court with a narrow verandah running round all four sides, off which the rooms open, and which, as a rule, are only lighted and ventilated by the door-way. The houses are kept clean, and the rooms and verandahs are regularly leeped.

(54.) "The poorer classes live in small huts about 14x10, greatest height about 12 feet. These structures are lighted and ventilated by the door-way.

(55.) "There is sometimes a narrow verandah in front, on which the residents sleep during the hot season.

(56.) "With regard to the circumstances of the people, I believe them to be moderately good. Since the year 1866 there has been no scarcity of food in the district, and there are no grounds for the belief that in the quarters of the zillah where fever prevailed the condition of the people in this respect has undergone change during the past three years.

(57.) From a sanitary point of view, however, it may be assumed that the habits of the people and many of their customs, the air they breathe, the water they drink, and the food they eat, are all opposed to the attainment of health or vigor; and the only wonder is that they possess either one or the other to the limited extent they do.

N.B.—No figures were given in the margin, but I have fully analysed in the opening part of the report the incidence of the population.

(58.) "In the Midnapore district at large the population is irregularly distributed. I note in the margin its incidence to the square mile in the pergunnahs in which the fever prevailed

(59.) "At Keerpoy, within the jurisdiction of the Chunderkonah Thannah, the population is particularly dense. Indeed at Keerpoy village succeeds village for nearly three miles with hardly a break, it being a matter of difficulty for the visitor to determine where one commences and the other ends."

28. Agreeing as I do entirely with all that is here written, I have little to add to it. The description given by Dr. Mathew applies, as is well known, to all the alluvial tracts in Bengal where the drainage is choked up and the population overgrown. But if the most populated, it is also the wealthiest part of the district: whether tested by its crops, its wealth, its schools, or its castes, it ranks first. It is here that the only jute grown in the district is found; sugar-cane is grown in abundance. Nowadah is the great emporium of *gour* in the district. Ghatal, again, is the wealthiest town in the district next to Midnapore; all the traffic of the northern section passes through it. A toll at its entrance, on a very bad cutcha road, lets for over Rs. 4,000 a year. Again, the putshalas that have come in under the new scheme in this neighbourhood outnumber those in the littoral tract as 3 to 1, and in the laterite as 10 to 1. Here too the Brahmans and Kaests of the district are to be found, and the "*bhadrolok*" are so numerous that I have heard it said, with reference to this fever, "it is better to die in Daspore than to live in one of the junglo mehals."

29. As regards the character of the fever, Dr. Mathew writes:—

(60.) "So much has already been written on this subject by the able and experienced officers who have watched the progress of the disease in other districts, that it seems hardly necessary for me to dwell here at any length on the subject. It is a malarious fever, the intermittent being the type by far the most commonly met with. In the early periods of its invasion remittent cases are sometimes encountered, many of which end fatally. The attack sometimes commences with violent vomiting and purging, the motions being profuse and watery; great prostration rapidly supervenes, almost amounting to collapse.

(61.) "Reaction is characterized by great heat of body with determination to the head. A not uncommon complication of this fever is pneumonia, on the supervention of which the fever assumes a continued character, typhoid symptoms manifest themselves, and unless the complication be promptly treated, it rapidly leads to a fatal termination.

(62.) " Intermittent fever and its sequelæ is the type of the disease most frequently met with.

(63.) " The rapidity with which the abdominal organs become involved seems one of its most striking characteristics. Rapid emaciation, digestive power lost or much impaired, œdema of the lower extremities, with marked pallor of the mucus surfaces, are the symptoms which attend all the more severe cases.

(64.) " The supervention of dysentery and diarrhœa is not unfrequent, and in many chronic cases scorbutic symptoms are very manifest.

(65.) " The epidemic fever has the following characteristics:—its severity over a large tract of country, as shown by the large proportion of the population attacked; the rapidity and certainty with which internal organs become involved; the tendency to, and frequency of, relapse, and marked emaciation with which the disease is attended; the excessive mortality, and its persistence and increased fatality as the cold season advances.

(66.) " On this subject officers who have had much experience of the disease are on the whole pretty well agreed.

Treatment. " Quinine stands first in estimation, especially in the early stages of the disease. In remittent fever it is usual to wait for the stage of remission before administering the antiperiodic; but it appears to me there are other stages of this disease in which quinine can be administered with signal advantage, and where it would not be judicious to delay its administration pending the action of purgatives and other remedies.

(67.) " However, in ordinary cases of fever, when there is much bilious derangement, with nausea, &c., purgatives and diaphoretics are generally called for, and the action of quinine seems to be rendered more certain and rapid by their use.

(68.) " I think it was Sir Ranold Martin who praised so much a powder composed of jalap, calomel, and tartar emetic. Two grains of the latter is the dose he advocates in the treatment of the fever of natives. I saw few cases during the past two years to whom I would have administered a dose of the kind, for it is unfortunately the case that the people of this district do not apply for treatment until the time for such remedies has passed.

(69.) " It is, however, chronic fever and its sequelæ that we are called upon most frequently to treat. To deal successfully with these cases appears to me one of the most perplexing and difficult task a medical officer can undertake.

(70.) " The condition of such patients is truly deplorable, and calculated to arouse our liveliest pity. It is probable that if advised, and medicine were placed within the reach of these people when first attacked, a vast amount of suffering and disease would be prevented.

(71.) " When once the extremities become dropsical, with enlargement of the liver and spleen, remedies such as we can place within the reach of a vast proportion of the sufferers are of little avail.

(72.) " The stomach appears to me to participate more fully than is usually recognised in the general degeneration the tissues are involved in; and without for a moment denying the immense importance of nutritious food in the treatment of such cases, yet I am disposed to think that more benefit would be derived from it in the early stages of the disease before the digestive powers had become impaired.

(73.) " There is, however, one article of diet that I would like to see given to these people, and that is good milk. In a great number of cases there is bowel disorder of some kind or other, and the late Dr. Fawcett placed great reliance on milk dietary in such cases, giving but little medicine.

(74.) " I would feel disposed to follow his advice to a certain extent, should it ever become my duty to superintend relief operations on an extended scale for this class of people. I should certainly prefer it to meat in any shape,—an article of diet to which the poor of this district are utterly unaccustomed, and which, particularly when sick, they are not likely to digest.

(75.) "With reference to the treatment of chronic fever and its results, the salts of iron, combined with the mineral acids, are the class of remedies which seemed to answer best. For cases of fever where enlargement of the spleen only exists, quinine with large doses of sulphuric acid are remedies which often succeed; counter-irritation over the region of the spleen, with a weak preparation of the biniodide of mercury ointment in recent cases of fever, when no marked evidence of blood deterioration exists, is a remedy of great power.

(76.) "Dr. Maclean of the Victoria Hospital, Netley, some time ago directed the attention of the profession to the use of these ointments in cases of splenic hypertrophy, and as far as my experience goes it seems to be well worthy of the praises bestowed on it by that officer. In cases where marked pallor of the mucus surfaces exists, as in old cases of fever, this remedy does not seem to answer, its application being frequently followed by profuse salivation."

30. On these two points I need make no comments.

(77.) "Early in September the Magistrate called my attention to the prevalence of fever at Narajole and the neighbouring villages. The police also about the same time reported that the disease had broken out at Shahpore and other places within the jurisdiction of the Debra police station. With the concurrence of Mr. Price, the Settlement Officer, the Native Doctor in charge of the survey party, who was then unemployed in the station, was ordered to proceed at once to Narajole with the necessary medicines. This officer showed a marked disinclination to undertake the duty. He had not done an hour's work during the two previous months, and seemed much surprised at being ordered to exert himself in any way.

(78.) "When informed that his services were temporarily placed at my disposal, he appealed to Mr. Price and eventually reported himself ill. After a week's delay he proceeded to Narajole, and although I did not expect that much assistance would be rendered by so unwilling a subordinate, yet it is due to the man to say that subsequently he worked well and willingly, and rendered good service at Narajole and the adjacent villages.

(79.) "In the meantime I proceeded to Debra, and from thence to Panchkoorah, travelling through the densely-populated tract of country lying between the high road to Calcutta and the Cossye river.

(80.) "On my return to Midnapore, with the concurrence of the Magistrate, the Native Doctor in charge of the police hospital was ordered to Shahpore, where I learned that fever prevailed to a serious extent. He was stationed about six miles to the north of the Debra police station. After a short time reports reached me that he was not going on well. The people complained that he would only attend those who were in a position to pay him, and that he was in fact dishonestly disposing of the medicine that had been placed in his hands.

(81.) "I would have recalled the man, but unfortunately his services could not then be well dispensed with. Notwithstanding warnings, both written and verbal, he at length committed himself to such an extent that he was subsequently convicted before the Joint-Magistrate of cheating and sentenced to six months' imprisonment and fined Rs. 100.

(82.) "Meanwhile the Magistrate had established a temporary dispensary at Narajole. A Native Doctor, named Kissen Sing, was appointed to the charge of it, and on his arrival from Calcutta, and pending the completion of the outcha dispensary building at Narajole, he was ordered to Dasspore, where fever then had broken out and was causing a heavy mortality.

(83.) "On my visiting Dasspore, a week after his appointment, I found him prostrated with fever. He was subsequently transferred to Narajole, and remained in charge of the dispensary until the end of February.

(84.) "The Deputy Inspector-General of Hospitals sent two Native Doctors from the Presidency. One of these was at once sent to Dasspore to relieve Kissen Sing, and the other was deputed to assist the Native Doctor

" belonging to the survey party who was stationed at Bowanepore and the
 " other villages near Narajole, to which allusion has already been made.

(85.) " The urgent calls for medical assistance from other districts hardly
 " left a man at the disposal of the Deputy Inspector-General, and I consequently
 " sent an experienced and intelligent compounder to treat the sick at a village
 " called Bulliarpore, about one mile from the Dasspore police station. This
 " man and the Native Doctor stationed at Dasspore did fair service. The
 " Magistrate when visiting Dasspore found them fully employed, and they
 " seemed to have gained to a great extent the confidence of the people.

(86.) " When I visited Ghatal, I ordered the Native Doctor in charge of the
 " dispensary to visit regularly the surrounding villages and prescribe for the sick.
 " He, however, allowed his supply of medicine to become exhausted, never
 " intimating the fact to me; and when the Commissioner visited Ghatal, early
 " in December, he found that the Native Doctor was neglecting his duty, and
 " had never visited a single village. My orders with regard to visiting the
 " villages were recorded in the Visitors' Book, and as far as I know the Native
 " Doctor had not the shadow of an excuse to offer for deliberately ignoring my
 " instruction.

(87.) " Mr. Buckland, rightly conceiving that the man could not be
 " trusted, deputed a constable to escort him daily to the affected villages; and
 " when I visited Ghatal, in January, I found the Native Doctor distributing
 " medicine to a large crowd in a village about a mile from Ghatal.

(88.) " The disestablishment of the Kissengunge charitable dispensary
 " placed the services of another Native Doctor at
 " our disposal. He was first deputed to treat the
 " sick in the villages near Debra, and afterwards was ordered to Bowanepore
 " and the other villages near Narajole, to replace the Native Doctor belonging
 " to the survey party, whose services were again required by the Settlement
 " Officer.

(89.) " The subjoined return shows the number treated up to the 31st
 " March.

(90.) " These figures give but a very inadequate idea of the actual amount
 " of sickness and the mortality that resulted.

(91.) " It is abundantly clear that the people of the district have not
 " much confidence in the European system of treatment, especially when
 " administered by their own countrymen, except in localities where dispensaries
 " have been working for some years.

(92.) " Koberajes, a numerous and influential class, still hold their ground
 " in the mofussil, and I found a large proportion of the sufferers under their
 " treatment. When a villager is attacked by fever the koberaj is sent for, and it
 " is only after he has failed, or when the resources of the patient are exhausted,
 " that the Government Native Doctor is applied to.

(93.) " Another individual, no less active in his opposition to the system
 " of gratuitous medical relief, is the wandering compounder. During the past
 " six months I have frequently encountered this class of practitioners in the
 " villages I visited.

(94.) " His qualifications are limited. He generally knows the doses of
 " drugs and how to prepare them, and that is about all. He generally intro-
 " duces himself as a Native Doctor who has abandoned Government service.
 " His supply of drugs are limited and are of dubious quality. He undertakes
 " the cure of the prevailing disease for a certain fixed sum, a portion of which
 " is paid in advance. The length of his stay is regulated by the amount of
 " practice he succeeds in obtaining and the emolument therefrom resulting.

(95.) " Doubt seems to exist as to whether these men should be opposed
 " or encouraged; I think the former. In the course of years, as duly qualified
 " men seek for practice in the mofussil, the compounders will disappear; but
 " in the meantime they victimise the simple villagers, and bring discredit on
 " the medical profession."

31. I do not entirely concur in these opinions; but as I do not want
 unnecessarily to increase the length of this already bulky report, I will content

myself with remarking that the experience which the people of the country have had of Native Doctors is not so very gratifying that we need be surprised at their being somewhat slow to place confidence in them. It will, I think, be found that if a Native Doctor be located in a place and behaves himself creditably, he will within a month command the entire confidence of the inhabitants.

32. I now pass on to the last and most important question, viz. what arrangements should be made to deal with the epidemic in its future ravages, which may be only too confidently anticipated.

33. On this subject Dr. Mathew's proposals are as follow :—

(96.) "The experience gained in other districts, and indeed in Midnapore,

Proposed measures for the current year. "also leads us to the belief that as the rainy "and autumn months approach, a fresh outbreak

"of the epidemic may be expected along the tract of country where it prevailed "in 1872.

(97.) "One fact that ought to be borne in mind is that assistance to be "effectual must be rendered in time, and precautions should be taken so as to "ensure that the first appearance of the disease in the affected quarters "should be brought promptly to notice, and remedies placed within the reach "of the sick in the early stages of the disease. The leading native gentlemen "residing in the fever-stricken quarters should be asked to interest themselves "in the matter and bring to the notice of the Magistrate exceptional "sickness, should any occur, and not wait until the village chowkeydar considers "it necessary to take action in the matter.

(98.) "The Magistrate will probably bring to the notice of Government "the few native gentlemen that extended a helping hand to their suffering "countrymen and dependants during the past season; but as far as could be "judged, the apathy and want of sympathy displayed by the vast majority "was most marked and disheartening.

(99.) "It is clear that the poor of this district will have to rely solely on "Government for any assistance they may require; and to what amount that "assistance can be rendered, must necessarily depend on the extent medical aid "will be required in other districts.

(100.) "Temporary dispensaries should be opened at Chunderkonah and "Kerpooy, and to each dispensary two Native Doctors should be attached. "One of these should be constantly on the move, while the other should "remain at the dispensary to treat those who may come for treatment, as well "as the sick in the adjoining villages.

(101.) "A definite area should be allotted to each dispensary, and "weekly returns demanded, showing the number treated, died, &c., and the "quantity of quinine expended. There is already a dispensary at Ghatal, and "to that a travelling Native Doctor should also be attached.

(102.) "Dasspore Pergunnah requires at the very least two dispensaries "and four Native Doctors; Narajole, one dispensary for the town and two "Native Doctors; and for the line of country between Narajole and the Debra "Thannah, three dispensaries with six Native Doctors.

(103.) "A special Superintendent should be appointed to superintend "the working of the dispensaries and the proceedings of the Native Doctors.

(104.) "His supervision to be effectual must be constant, and his visits "unexpected by his subordinates. The orders laid down debarring Native "Doctors on special duty of this kind from taking fees should be rigidly "enforced, and on no account should a Native Doctor be allowed to take money, "no matter what the position of his patient may be.

(105.) "In a previous paragraph I alluded to the sanitary condition of "the villages, and I have no doubt, were it practicable to free them from the "jungle by which they are cumbered and improve the water-supply, consider- "able benefit would result.

(106.) "Dr. Elliot has pointed out forcibly and clearly what should be done "in this direction, and it is greatly to be regretted that no means of effectually "carrying out the measures he advocates appear to be available, and conse- "quently the utility of further alluding to the subject here appears doubtful."

34. It will be seen that Dr. Mathew applies for nine dispensaries and eighteen Native Doctors; two attached to each dispensary, one to travel, and the other to treat the dispensary patients. He also applies for a Superintendent, by which he means, I understand, an officer of the rank of Sub-Assistant Surgeon to supervise the Native Doctors. So far I entirely concur: it is obvious that the more Native Doctors the Government can spare, the more effectually we can combat the ravages of the fever.

35. Assuming, however, that so large a supply will not be available, at any rate, until it is actually proved that the district is very severely attacked, I would ask sanction to the following proposals:—

(1) That the Civil Surgeon and myself may have the disposal of two complete dispensaries and four Native Doctors, entirely supplied by Government, to locate wherever we think they are most needed and the people least able to help themselves.

(2) That a Native Doctor and medicines be sent to any place within the affected area where the inhabitants agree to pay half the Doctor's salary. This the people of the villages opposite Narajole have already spontaneously offered to do on hearing that the Doctor was likely to be withdrawn.

(3) That quinine be entrusted to the gentlemen named by the British Indian Association in their letter of the 7th November 1872:—

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|--------------------------|-------------------------------|
| 1. Modden Mohun Singh, | 7. Koylash Chunder Mookerjee, |
| 2. Bholanath Roy, | 8. Ram Coomar Gangooly, |
| 3. Radhakant Ghosal, | 9. Puttit Pabon Patra, |
| 4. Jogessar Pahari, | 10. Seetul Persad Chowdry, |
| 5. Nobin Chunder Haldar, | 11. Melur Chunder Roy, |
| 6. Shibnaram Ghuttuck, | 12. Kristo Komul Masunto, |

with simple instructions for its administration. They have all agreed to distribute it.

(4) That a supply of quinine be placed for sale at each police station and outpost at 20 per cent. below cost price, and a discretionary power be given to the officer in charge to administer it gratis to any poor patients, keeping a list of the names and amounts.

(5) That to every schoolmaster and patshala guru in connection with Government a certain quantity of quinine be given for the use of himself and his pupils. Schools and patshalas are particularly numerous in this part of the district. Over 200 patshalas have accepted connection with Government on the terms offered recently, and there are some 20 or 25 schools. I would propose to make a fixed allowance to each guru—say an ounce, if this would not be too liberal—and let him know that the supply would not be repeated. I would then give him to understand that if he found that it was not all needed for himself and his pupils, he might give it in charity to other indigent sufferers, and I would instruct him how to do so.

No doubt many of the gurus would sell it, as do the Native Doctors and every body who can get the command of so valuable an article; but after all, even if sold, it will entail no greater cost on Government, while it will disseminate pure quinine where it is most needed. On the other hand, it will invest the gurus with some importance in their villages,—an object which I look on as desirable in itself. I would, however, expressly prohibit them from *selling* it while authorising them to *give* it away, and make this prohibition and permission generally known. One cannot but hope that if that be done, partly through fear, partly through honesty, a good deal will be gratuitously distributed where it is most needed.

I do not propose to give this to all gurus in the affected area, whether the fever be in their neighbourhood or not, but only to those who are in places that are attacked.

(6) I submit that instead of opposing, we should endeavour to utilise, the services of all duly qualified private practitioners. Hitherto I do not think I am wrong in saying that the practical attitude

of the Government and the department in the interior is one of hostility. The private practitioner is struggling probably to make a practice. When a dispensary is (as for instance at Hajepore) planted exactly opposite his door, he is of course under-sold; and just when he might most hope to make his way, he finds the ground cut from under his feet. This is the way he practically realizes the encouragement he often listened to in Calcutta about starting on his own merits and avoiding the error of his fellow students in looking exclusively to Government for employment.

I do not deny that as a whole this class are selfish—as they have to live by their profession it can hardly be otherwise, and that they are in great measure strangers to that sympathy for suffering among the poor which so honorably distinguishes the profession in parts of Europe; but I think they deserve encouragement, and would offer each duly licensed practitioner a certain quantity of quinine (say 4 oz. or 8 oz., or even 1 lb. if the fever in his neighbourhood is very bad) on condition that he would, as far as it went, distribute it gratis among poor sufferers. These practitioners would I believe accept, and if they sold some, they would probably also distribute a good deal gratuitously. We know of four such licensed practitioners within the affected area—one at Chunderkonah, one at Ghatal, and two at Nowadah.

(7.) I would, in every village of 500 persons and upwards attacked by the fever, appoint a panchayet of three or more persons to superintend the distribution of quinine in their village in the manner above described, to report every week the state of the fever, number of deaths, &c., and bring to notice any delinquencies or shortcomings on the part of those entrusted with quinine. In each such village there will probably be at least one guru: where there is not, one of the members of the panchayet might be entrusted with quinine. In the townships of Ghatal and Chunderkonah, and the unions of Keerpoy and Ranjehpore, the town committees should be selected.

(8.) The directions as to the use of quinine, and the cases where it can safely be given, should be printed, and a copy given to every one who receives any for distribution. I need scarcely say that if a Sub-Assistant Surgeon can be spared to superintend the operations in this district, it will be most conducive towards effectual supervision.

36. I ought not to omit to say, with reference to Dr. Mathew's paragraphs 103 and 106, that I earnestly protest against any attempt to clear away jungle or clean out tanks *compulsorily* in the affected villages. I saw a great deal of these measures when at Baraset, and afterwards at Krishnaghur, when these two places were both under the influence of the epidemic, and am convinced that they lead to a great deal of oppression, destruction of valuable property, expense, and no corresponding benefit. If done thoroughly, they might lead to good results; but to do this it would be necessary to spend thousands of rupees in each village.

37. The gentlemen who assisted this year in the relief of the distress were—

1. Rajah Jotendro Mohun Tagore, who sent a Native Doctor to Kootubpore, though without placing him *en rapport* with the authorities or communicating the fact to us.

2. Baboo Ajoodhya Ram Khan, commonly called Rajah of Midnapore, whose residence is at Narajole. This gentleman supported a private dispensary of his own at his house, and also paid towards a Government dispensary in another part of the town.

3. Baboo Lal Behary Dutt of Chinsurah, who sent me Rs. 100 towards the relief of the indigent.

4. Baboo Janokee Nath Mookerjee of Bolnches, who sent me Rs. 40 for the relief of the indigent.

38. Dr. Mathew concludes his report with the subject of causation as follows:—

(107.) “On this subject I have but few observations to offer. The disease is due to the action of a poison which we call malaria for want of a better name.

Causation.

(108.) "Notwithstanding however the many, and indeed probable, causes that have from time to time been discussed as tending to produce the epidemic, it appears to me that their disease-producing powers have always been admitted, and it is certainly very clear that all these conditions which are said to produce this epidemic have existed for many years without producing any other effect on the public health except those periodic outbreaks of fever with which every European resident in Bengal is familiar, and from which every native of the country suffers at some time or other. The appearance of the disease in the laterite tracts of Beerbhoomi clearly shows that a water-logged subsoil is not a necessary condition for its propagation.

(109.) "The epidemic fever, as far as I know, has not as yet made its appearance in any village in this district built on laterite soil, nor does the disease appear to be advancing in the direction of the laterite country. I regard it as an advance of the Hooghly epidemic; but by what means the disease has been introduced I am not prepared to say. The disease is not spread by human intercourse, otherwise the station of Midnapore would have been the scene of an outbreak any time since 1869.

(110.) "Many people suffering from the epidemic fever of Hooghly and Burdwan have come to Midnapore and never introduced the disease into the town. During the past cold weather numbers of people from Daspore and Gharial were treated at the charitable dispensary, many of whom are at present living in the town, yet no outbreak of the epidemic fever has occurred.

(111.) "Residence in an affected locality, no matter the condition of life, gives rise to the disease, and that with a certainty that few people, no matter how strongly they may deny the presence of a specific poison, would like to test in their own persons.

(112.) "I know of two instances of native gentlemen occupying influential and lucrative positions in this district visiting their homes in Burdwan in perfect health and their contracting an attack of the prevailing fever, of which they both died in the course of a few months.

(113.) "In conclusion I have to apologise for the great delay that has taken place in submitting the report. The accompanying map is, I fear, inaccurate in many respects; but it is the only one that it was possible to procure, and it is to be hoped that it will suffice to illustrate roughly the line of country affected by the epidemic. But owing to the irregularity in the incidence of the disease, to show that with anything like accuracy on a map, would be a matter of great difficulty, and would still further delay the submission of this report."

39. I need only add that all the facts in this district favor the prevailing opinion that the epidemic is due to a concurrence of causes partly known, partly unknown. It finds a congenial home in a depressed and water-logged country, a dense population, and all the insanitary surroundings which a dense population entails. On the other hand, it seems equally clear that it has a virus of its own independent of these causes, which may poison the air of a perfectly dry and sparsely populated tract. As in the case of cholera, it is easy to see that certain conditions predispose places for its ravages, but unsafe to say that those conditions circumscribe its operations. The theory favoured by Colonel Haig is, it seems, obviously true so far as that an enfeebled vitality due to poor and insufficient food, bad water, and impure air, render those attacked with the fever far less capable of resisting its attacks than they would be if possessed of greater strength of constitution; but conspicuously wrong in so far as it seems to contend that the morbid influences to which they are exposed have undergone no change, but remain the same in the affected tracts as they always were, while only the power of resisting them is weakened. That the air is positively tainted or poisoned, any one residing in it for a few days can easily ascertain; while a perfectly healthy and well-fed man transferred to an affected locality is attacked with the fever almost immediately.